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Teacher's Guide

LANDSCAPING YOUR HOME

Agricultural Education Department
The Ohio State University
and
Vocational Agriculture Service
Department of Education
Columbus, Ohio

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FOREWORD

During the past few years an increasing number of Ohio Vocational Agriculture Teachers have taught units to their high school classes in the field of horticulture. One of the most common units taught has been "Landscaping and Beautifying Home Grounds." Such teaching followed by carefully supervised experience is of value to perspective farmers as well as those students who need guidance to career opportunities in this field.

This is a guide to teachers who are starting to teach in a relatively unfamiliar field. The unit includes suggestions to teachers as to methods as well as to the major technical areas to be included. A number of suggested tests and student exercises are incorporated.

We believe that a teacher who wishes to teach in this area should supplement this unit by assembling appropriate references for his students and by providing appropriate field trips in the community. Classroom teaching should be followed by home improvement projects or school projects in which the students have a chance to develop additional skills and understandings under the guidance of a teacher.

This teaching unit is based largely upon the experience of Lowell Hedges, Teacher of Vocational Agriculture at Elgin High School, Marion, Ohio. Mr. Hedges has taught this unit to several of his classes and has made use of all the materials in his own school. The unit was developed as part of a special problem which Mr. Hedges carried out in the Department of Agricultural Education and with the assistance of Harlan Ridenour, Director of the Curriculum Materials Service for Ohio Vocational Agriculture Teachers.

We hope that it serves the useful purpose in providing students experience in an important segment of Ohio Agriculture.

Ralph J. Woodin
Professor of Agricultural Education

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Introduction

Improving the home landscape is an important part of planning the farmstead, and can be an interesting and useful unit for high school vocational agriculture classes. Much pleasure and satisfaction is received from improved landscapes of both rural and urban homes. A good arrangement makes the farmstead more attractive and a safer place in which to live. People have more leisure time today, and many want to use their time in improving the appearance of their home grounds.

It is the intended purpose of this unit to acquaint vocational agriculture students with the values of a well-planned landscape design for the home. The unit also provides the basic information needed for the student to develop and maintain a landscape plan for his home.

Early in the teaching of the unit, the teacher should attempt to develop in the student a realistic concept of landscape design. This unit should become the basis for improvement projects in which students can put these learnings into practice. As a community is evaluated, one will find that many homes are either "overlandscaped" or not landscaped at all. Merely planting trees and shrubs is not landscaping. Designing a landscape is an art. A successful landscape design is based upon good taste, common sense, and the application of a few basic principles of landscape architecture.

It is important to help the student understand that it is not necessary to complete the total design all at once. His first job is to put his plan on paper. Then, in the next three to five years, as he has the time and money, he can put the plan into effect with the aid of the other members of the family. Development of the home landscape should be a cooperative affair, with the vocational agriculture student providing the "know-how" in designing, establishing and maintaining the landscape design as a part of his supervised practice program.

In order to adequately master the unit, the majority of the class should satisfactorily complete the following activities or develop the following abilities:

1. An understanding of the need for a properly landscaped home.
2. An understanding of the basic architectural principles in landscape design.
3. An understanding of how to apply these principles in developing a plan for the public, living and service areas of the home grounds.
4. A basic understanding of commonly used trees and shrubs as to their size, shape, growth habits, hardiness, disease and insect resistance, and where they fit best in the over-all landscape design.
5. The ability to properly plant, fertilize and prune the commonly used trees and ornamental shrubs.

6. Develop a master landscape design for his home grounds that is functional, economical, attractive, and that can be completed within the next three to five years.

Minimum materials needed to teach this unit are:

a. Catalogs from nurseries. These can be used as references for the purpose of identification of plants and for obtaining other information about the plant.
b. Slides on landscape designs for the purpose of illustrating landscape design principles, or
c. Field trips to nearby homes for the purpose of illustrating landscape design principles.
d. Field trips to homes of class members in order to obtain experience in evaluating the present landscape plan and to design a new plan based on landscape principles discussed in class.
e. Access to common shrubs and shade trees for identification purposes.

Lowell E. Hedges
Vocational Agriculture Teacher
Elgin High School
Marion, Ohio

How Does Your Lawn Rate?

(Each question counts 5 points)

	Your Score
1. Is the lawn well kept?	_____
2. Is the lawn weedless?	_____
3. Is the lawn mowed?	_____
4. Is the lawn free from moles?	_____
5. Are there adequate trees for framing the house?	_____
6. Are there adequate trees for shade?	_____
7. Are there adequate trees for background?	_____
8. Are there proper plantings of shrubs and vines around the house?	_____
9. Is the lawn difficult to mow because of old shrubs, flower beds, fruit trees, rose bushes, arbors, trellises, etc. planted in it?	_____
10. Are walks and drives convenient?	_____
11. Are there other walks and drives needed?	_____
12. Are some of the walks and drives unnecessary?	_____
13. Is there sufficient yard space on all sides of the house to make it look nice?	_____
14. Is the side fence or back fence too close to the house?	_____
15. Are there any unnecessary fences or gates?	_____
16. Do any of the fences or gates need moving for greater convenience?	_____
17. Is the yard neat and clean?	_____
18. Is the farm machinery put away?	_____
19. Is the yard attractive the entire year with evergreens, shrubs, flowers and trees?	_____
20. Is there some shady place to sit in your yard, or better still, to picnic?	_____
Your total score:	_____

CHAPTER I

Developing a Landscape Plan for the Home Grounds.

Problem: What plan should be used in landscaping the home grounds?

Items to Consider:

1. What is meant by a "landscaping" design?
2. Why landscape the home grounds?
3. What principles are involved in designing a plan?

Basic Information:

1. What is meant by a "landscaping" design?

Landscaping is the art of arranging and fitting together of lands, plants and buildings for human use and enjoyment.

2. Why landscape the home grounds?

a. Trees and shrubs beautify the home.
b. Houses look unfinished without trees and shrubs.
c. Trees and shrubs increase the value of the property.
d. Trees and shrubs provide shade and windbreaks.
e. Trees and shrubs provide privacy for outdoor family activity.
f. Landscaping furnishes exercise, relaxation, and an outlet for creativity.

3. What principles are involved in designing a plan?

The principles of art apply to landscape design. The ultimate goal or purpose of all artistic effort is to achieve unity, or a sense of completeness, plus harmony. In a design, there must be a primary focal point or center of interest around which the landscape plants, structures and open spaces are grouped or balanced. The arrangement of these landscape elements should give a sequence leading to or away from the focal point. For example, the front door is the focal point of the front or public area of the home. Landscape elements are balanced around this point.

a. Principle of balance.

Mass, color, line or texture must be equalized on each side of a real or imaginery point to satisfy one's sense of balance. Balance can be achieved by either symmetrical or asymmetrical arrangement.

(1) Symmetrical - A good example is a formal garden arrangement. Plant arrangement on one side of the axis is the exact duplicate of the other side. Basic design is rectangular. See Figure 1.

(2) Asymmetrical - An informal balance is achieved through the use of contrast in shape and size. For example, a group of small plants around a pool, or a group of plants used to "balance" a large open area of lawn. An informal design has asymmetrical balance and more natural lines, and is not confined by rectangular forms or straight lines. See Figure 2.

Other examples: A large tree on one side of the property will balance several small trees on the other side; a medium-size tree on one side will balance a group of shrubs on the other side.

b. Principle of simplicity:

Simplicity is achieved through a repetition of landscape materials. Repeat a few well-arranged forms, colors, or textures in various areas. See Figure 3.

Simplicity is destroyed if too many different kinds of plants are used in the design.

c. Principle of scale or proportion:

Scale means the size of units, such as open space, buildings, and plantings. Proportion is a pleasing relationship of one part of the design to another part and to the whole design. If scale is kept constant throughout the design, the design will have proportion. For example, if a lawn appears too long and narrow, we may be unfavorably reminded of a bowling alley. A large shade tree needs a setting in scale with its size. Otherwise, it will look crowded and uncomfortable. A low, ranch style home would need a low-growing shade tree, while a tall narrow home would need a tall, mature tree as part of the setting in order to achieve a sense of proportion. See Figure 4.

d. Principle of contrast:

Harmony can be achieved by the use of contrast in size, texture, and color of plants. Use a low plant near a tall one, or a broad leaf plant next to a narrow-leaf plant. One can also use contrast in plant colors. A dark-green evergreen offers a striking contrast against a white house. Figure 5 illustrates a contrast in shape.

e. Principle of harmony:

Harmony is achieved in a landscape when, for example, colors of various objects blend together rather than clash. This is especially true of exterior finishes, roof colors, and plant color combinations. Harmony is also achieved when three of one kind of plant are grouped together rather than having a single plant.

f. Principle of repetition:

Repetition simply indicates the need for a reappearance of attractive materials in several locations in the landscape. Good repetition can be obtained by repeating the exterior finishes, roof colors, similar plants and other materials in several locations throughout the landscape. See Figure 6.

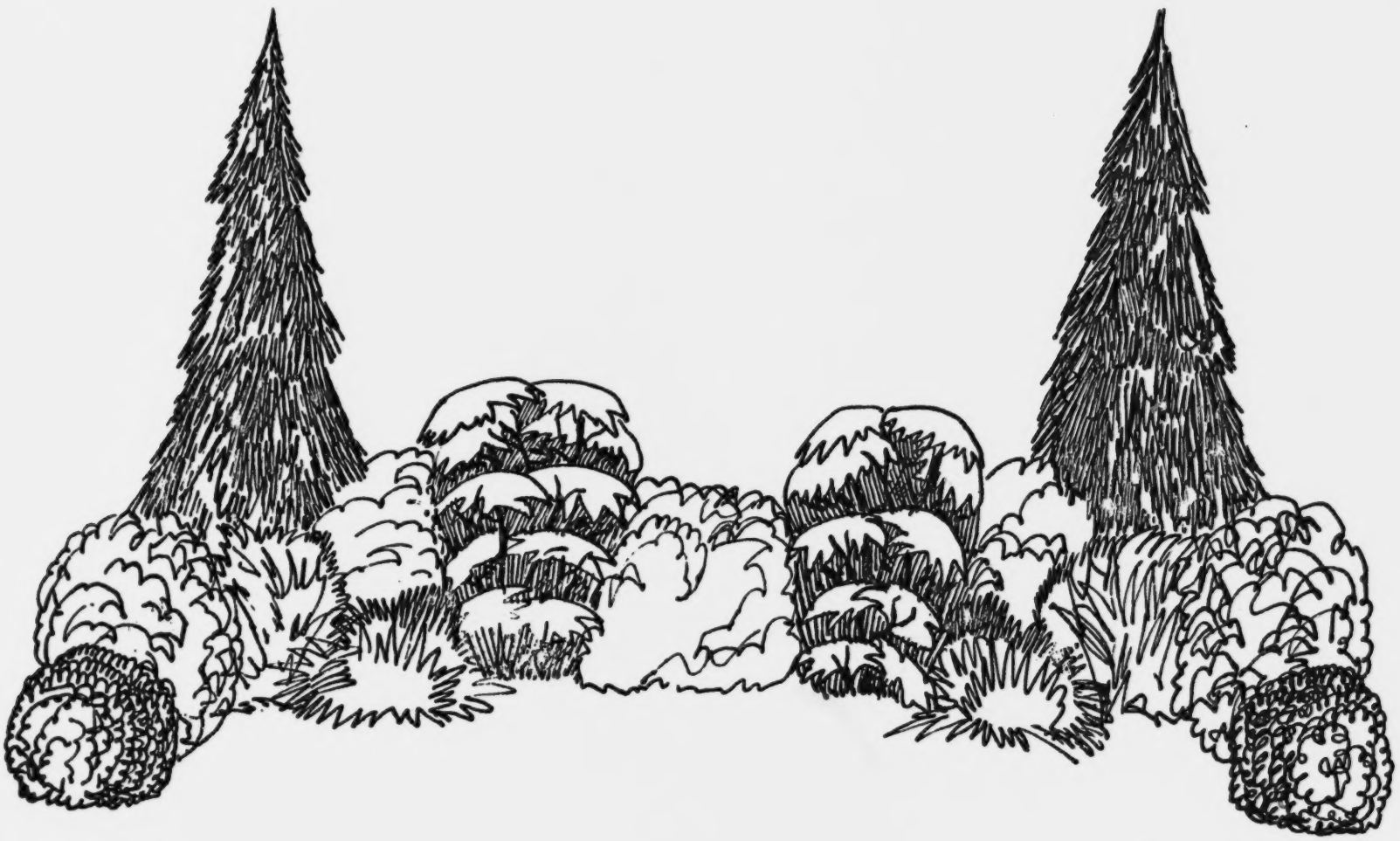
g. Principle of variety:

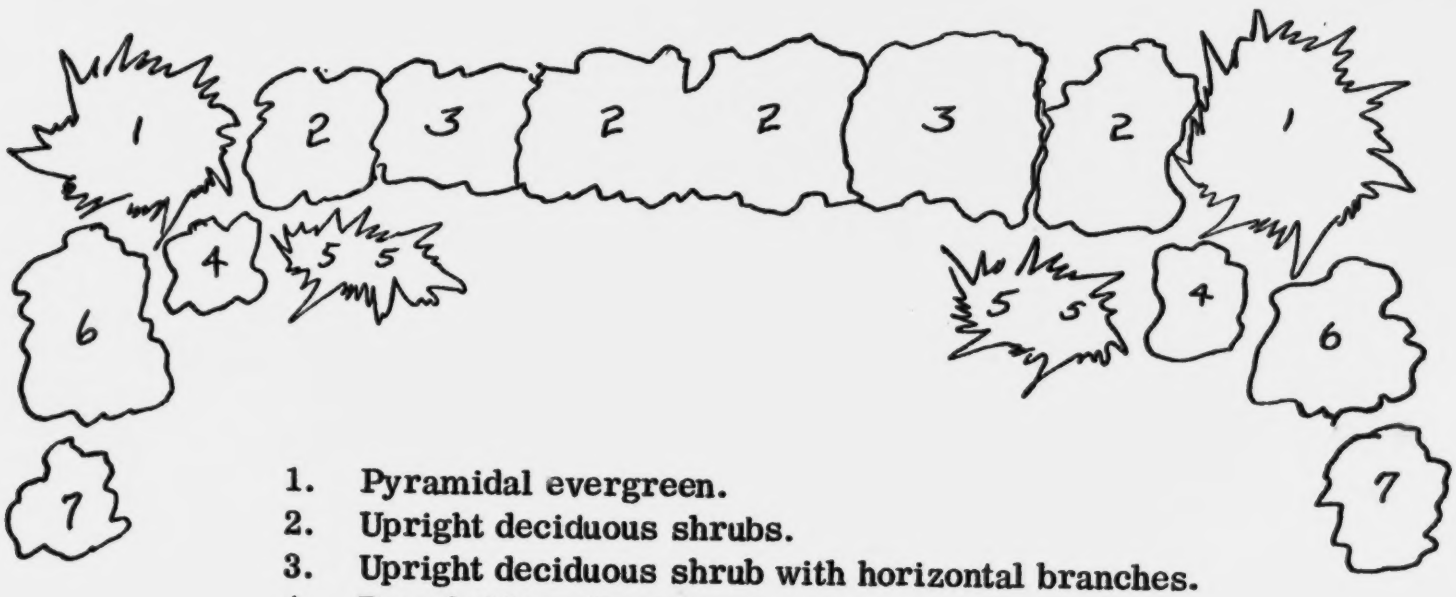
In order to offset any monotonous effect of repetition, some variety in the choice of plants and other landscape materials must be used. Variety gives extra interest to outdoor areas around the home grounds. See Figure 7.

h. Principle of sequence:

An orderly, natural combination of landscape materials best describes the principle of sequence. Arranging of landscape materials in the proper sequence would be to place low objects in the foreground, intermediate objects in the far foreground and tall objects in the background. See Figure 8.

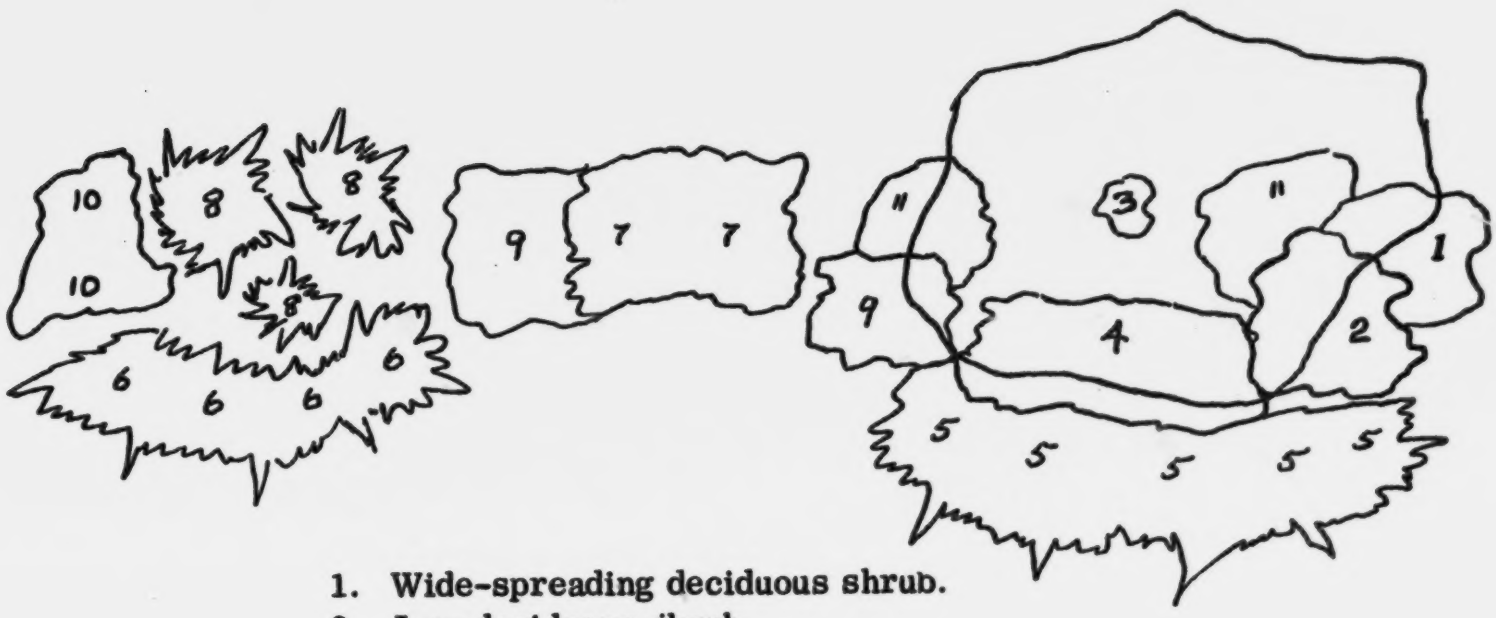
Figure 1. Balance in landscape design. A symmetrical plan for a border planting.





1. Pyramidal evergreen.
2. Upright deciduous shrubs.
3. Upright deciduous shrub with horizontal branches.
4. Rounded broadleaf evergreen.
5. Prostrate evergreen.
6. Rounded deciduous shrub.
7. Low broadleaf evergreen

Figure 2. Balance in landscape design. An asymmetrical plan for a border planting.



1. Wide-spreading deciduous shrub.
2. Low deciduous shrub.
3. Small deciduous tree.
4. Deciduous shrub, upright branches.
5. Prostrate evergreen.
6. Prostrate evergreen (different variety).
7. Tall deciduous shrub.
8. Pyramidal evergreen.
9. Rounded deciduous shrub.
10. Broadleaf evergreen.
11. Tall deciduous shrub, shade tolerant.

Figure 3. Simplicity is achieved through repeating the use of landscape materials.

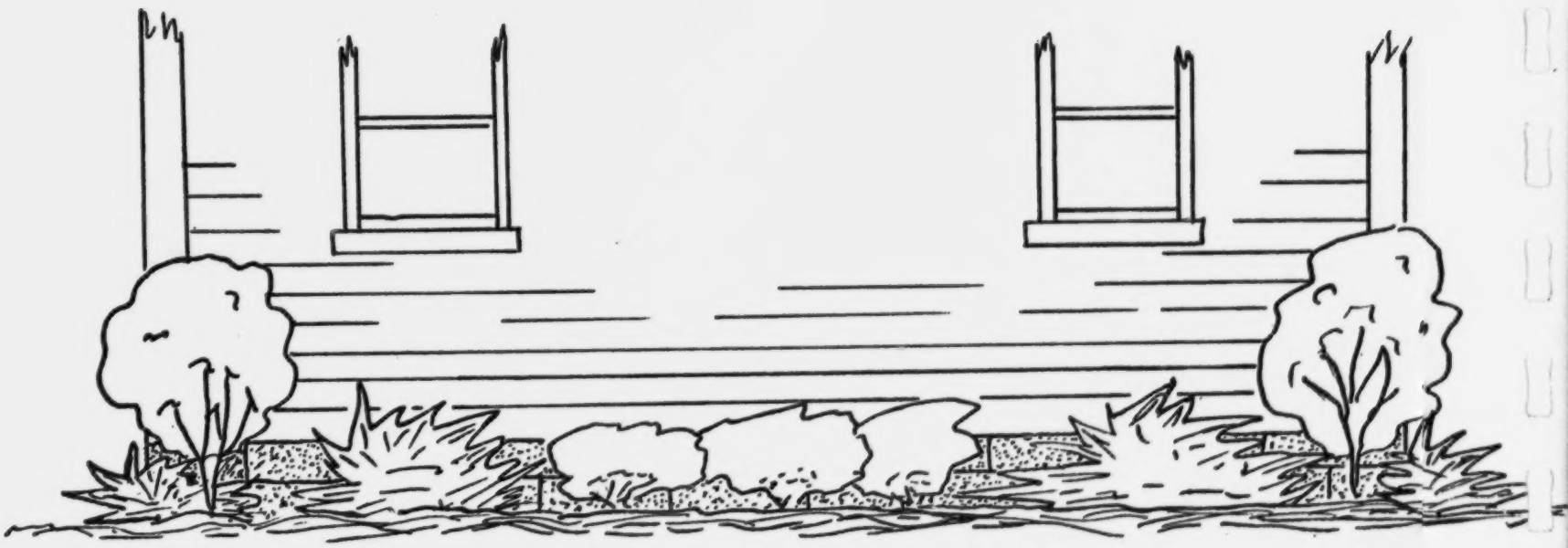
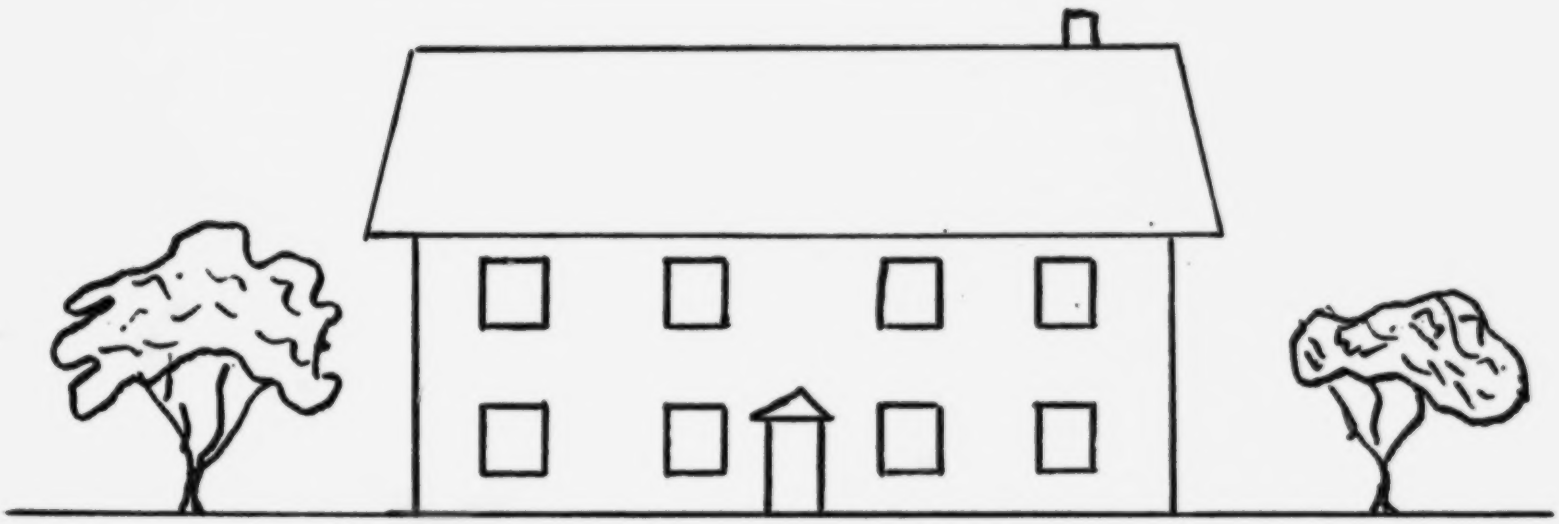
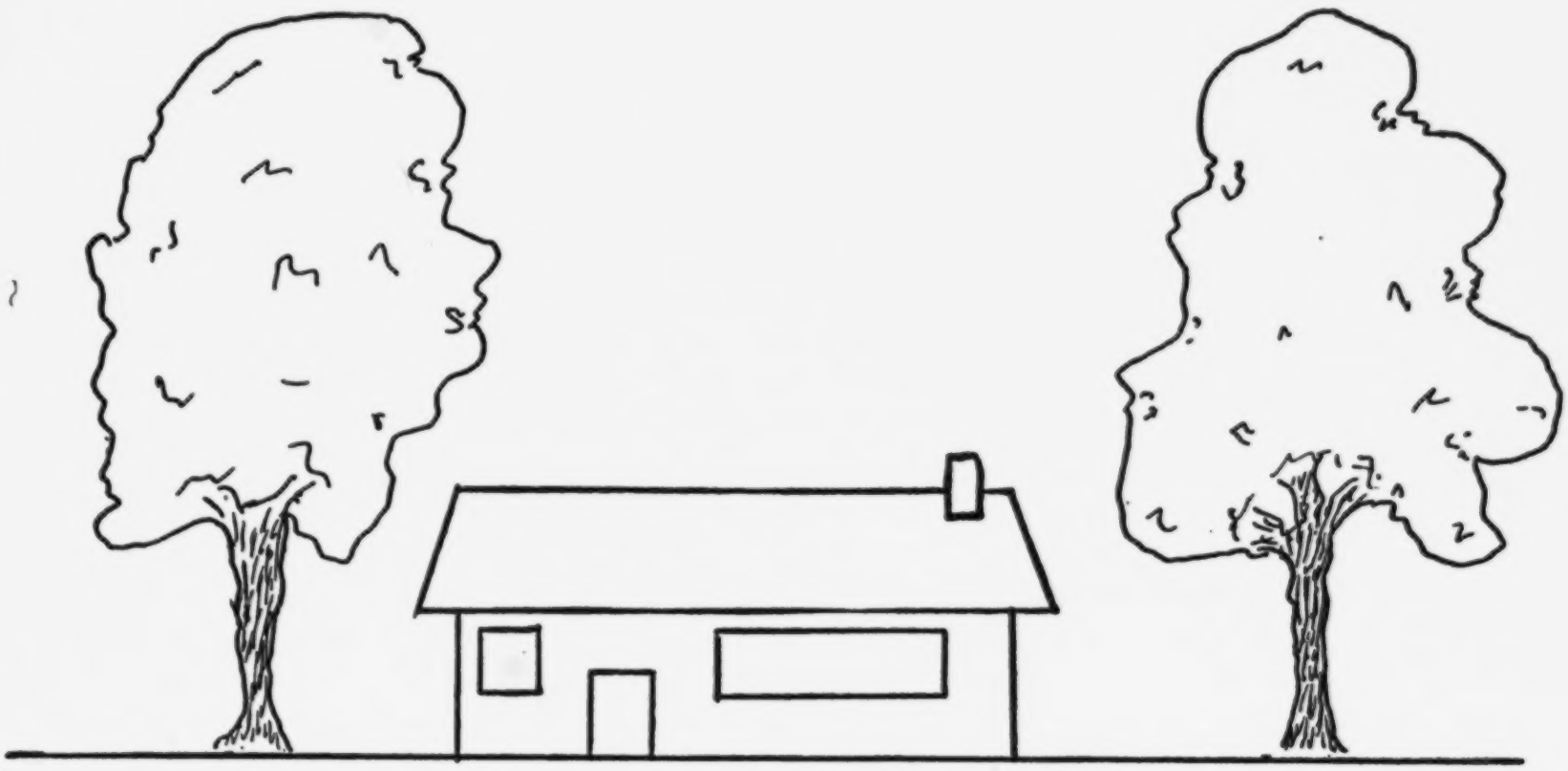


Figure 4. Scale or Proportion in Landscape Design.



A large house framed with small trees appears even larger that it actually is.



A small house framed with large trees appears smaller than it actually is.

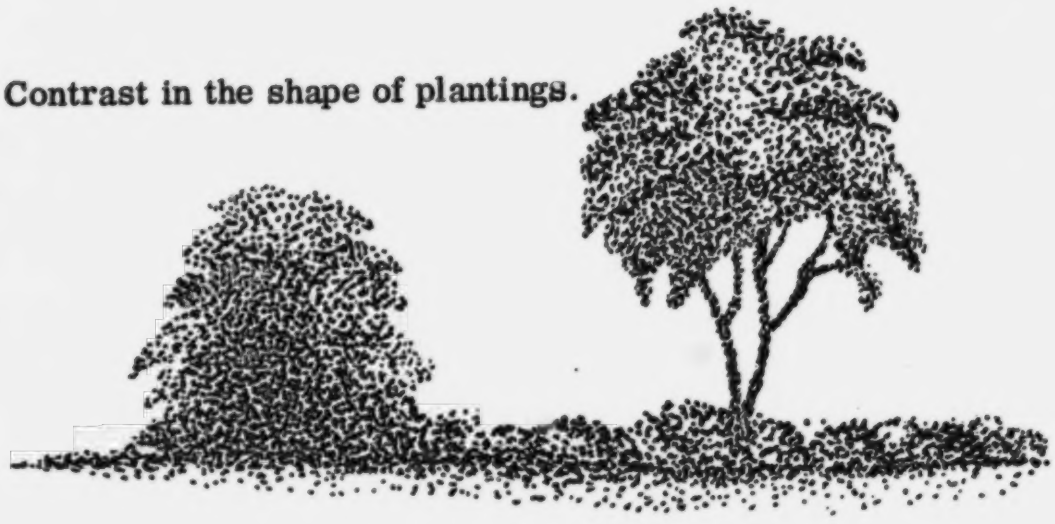
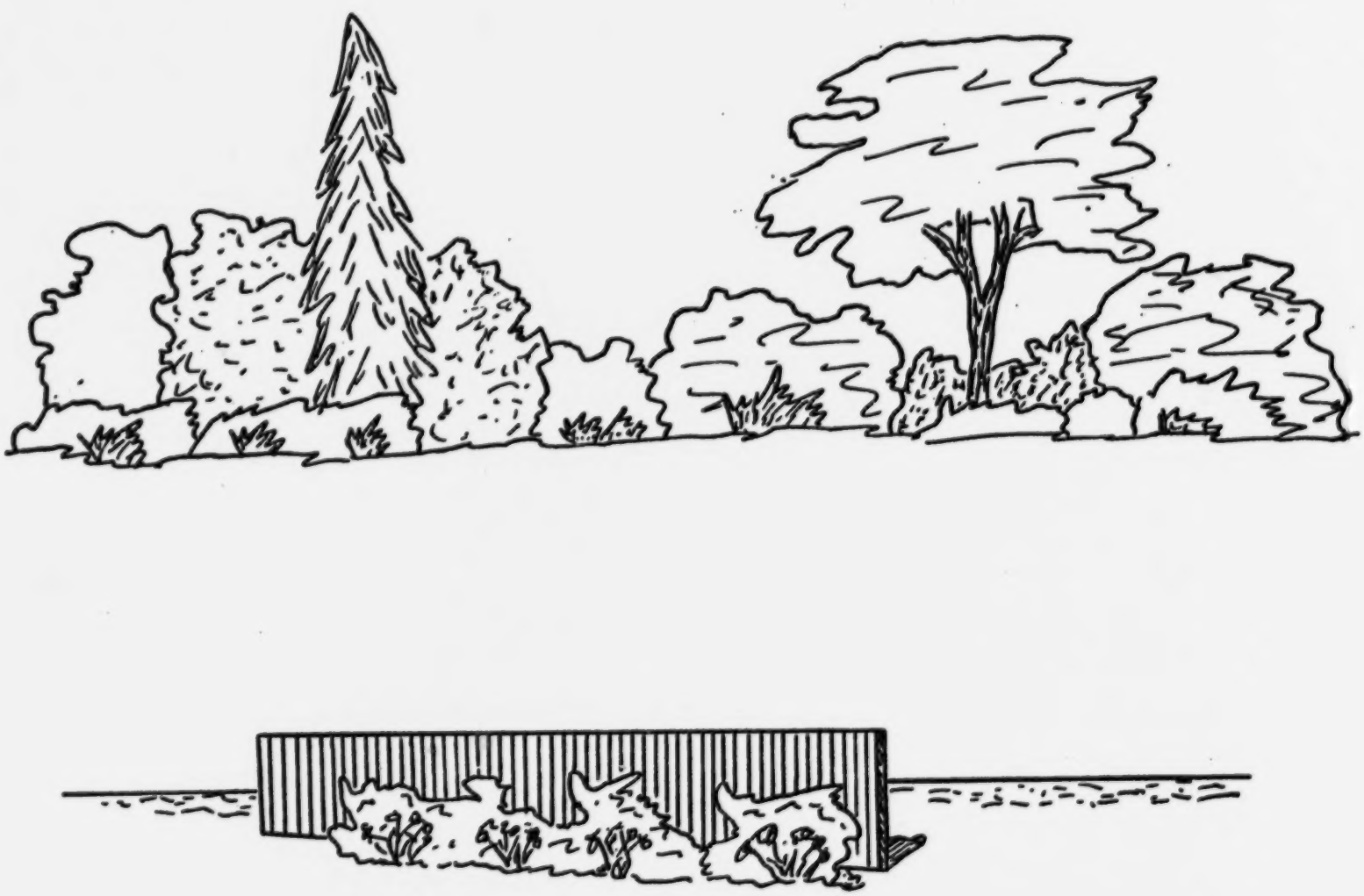


Figure 5. Contrast in the shape of plantings.

Figure 6. Repetition is achieved through the reappearance of materials in several locations in the landscape.

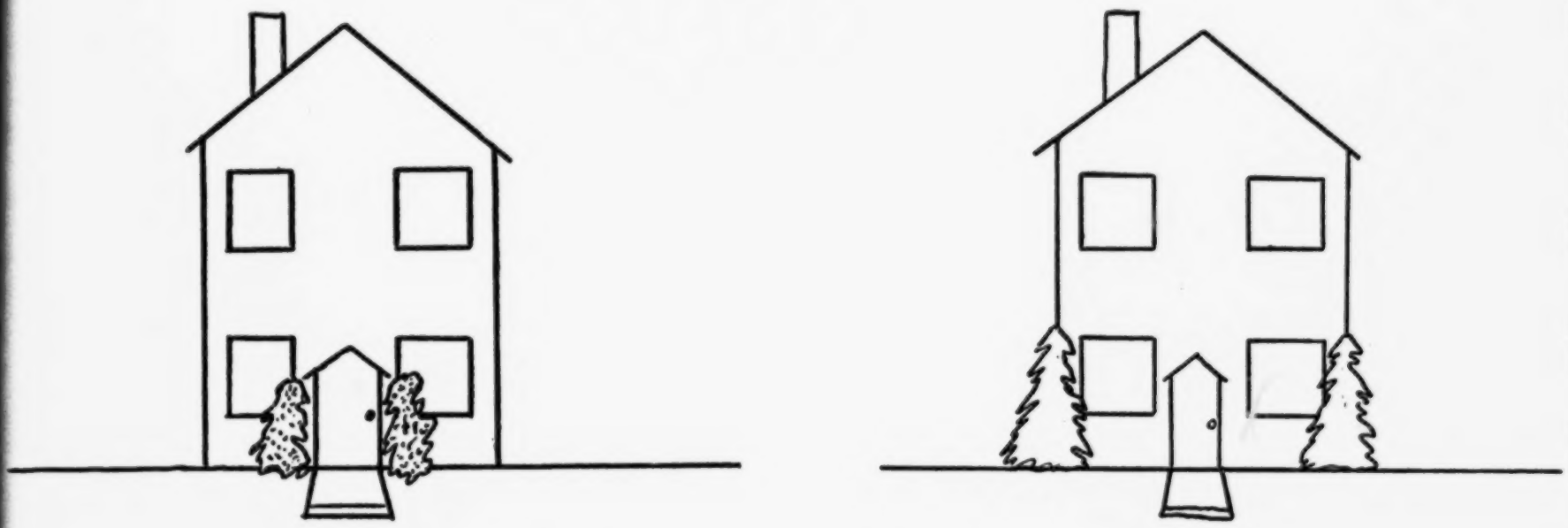
Figure 7. One form of variety is illustrated through the use of a thin tree (left) and a dense tree (right).

Figure 8. Sequence is achieved by arranging landscape materials with low objects in the foreground and taller materials in the background.



Groups and units should be wider than they are tall, as shown by the fence and border planting.

Figure 9. Emphasis in Landscape Design.

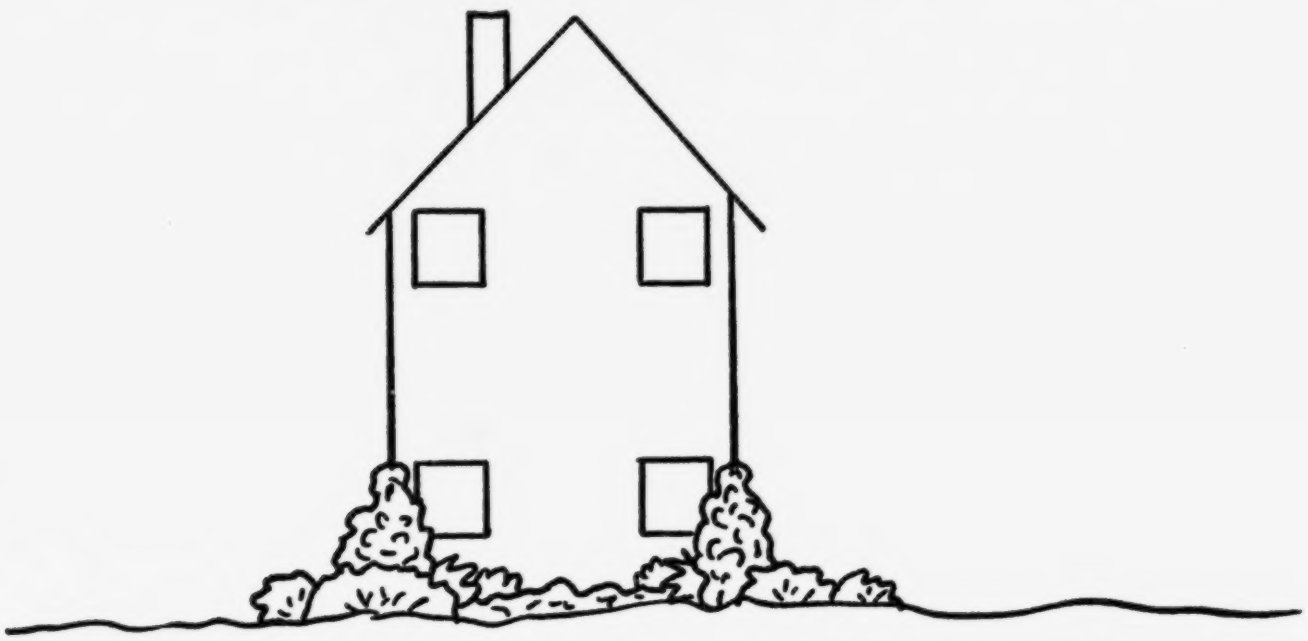


This house is too tall for its width. Vertical plants by the entrance or on the corners make it look still narrower.

To make the narrow house look wider, extend rounded plantings from the entrance beyond each corner. Put dominant plants at the corners and accent plants at each side of the steps. All plants used should be wide spreading and have dense foliage.

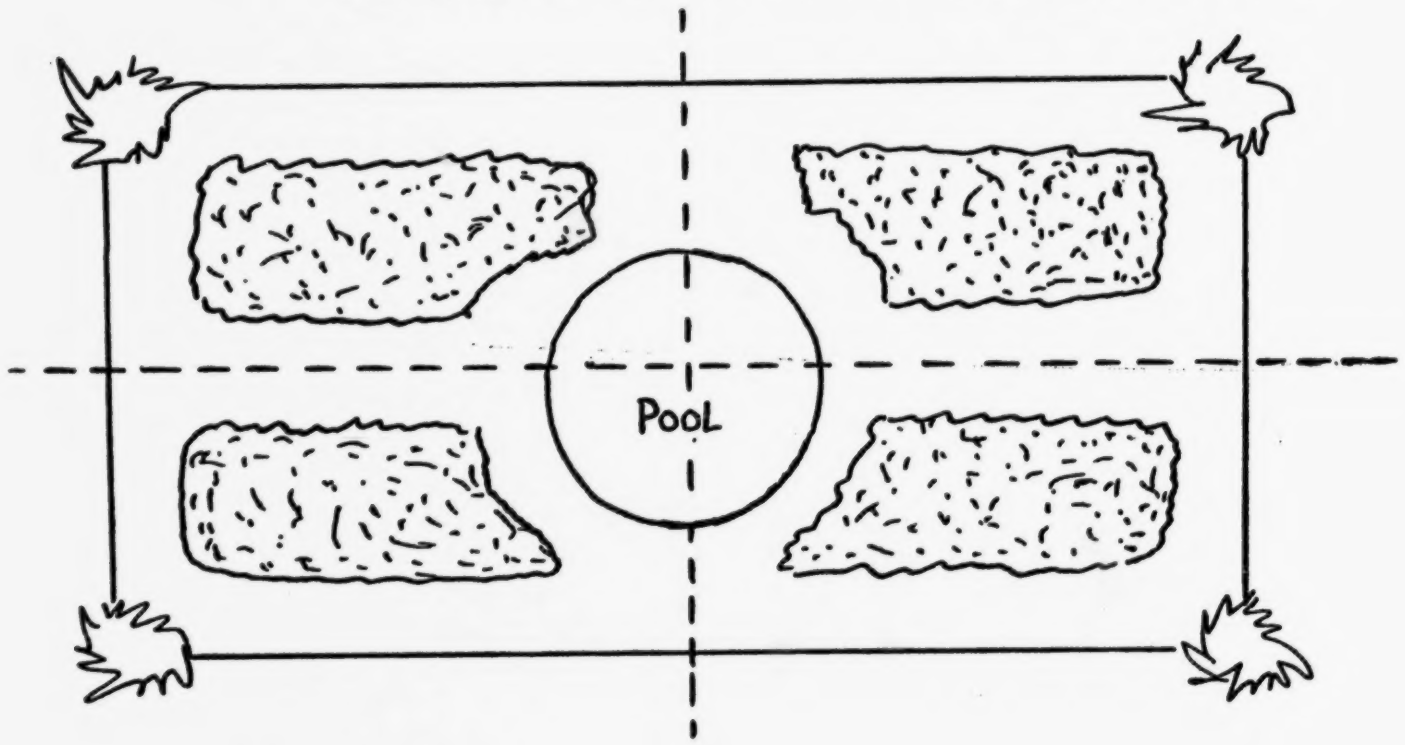
Figure 10. Emphasis in Landscape Design.

The house in Figure 10 is too tall for its width. In the sketch above the pyramidal evergreens made it look even taller and narrower. The tree in the center tends to cut the house in half. All three trees emphasize the vertical lines, which need to be de-emphasized.



By using the right kind of plantings, the house can be broadened. The two tall plants at the corners reduce the sharpness of the corner lines. The low-spreading plants along the side of the house provide a contin - uous low mass which attracts attention away from the height of the house.

Figure 11. An example of symmetrical balance which has a similarity of arrangement on either side of a central dividing line. A single unit in the center or units on each side of the center that balance each other provide the symmetric balance.



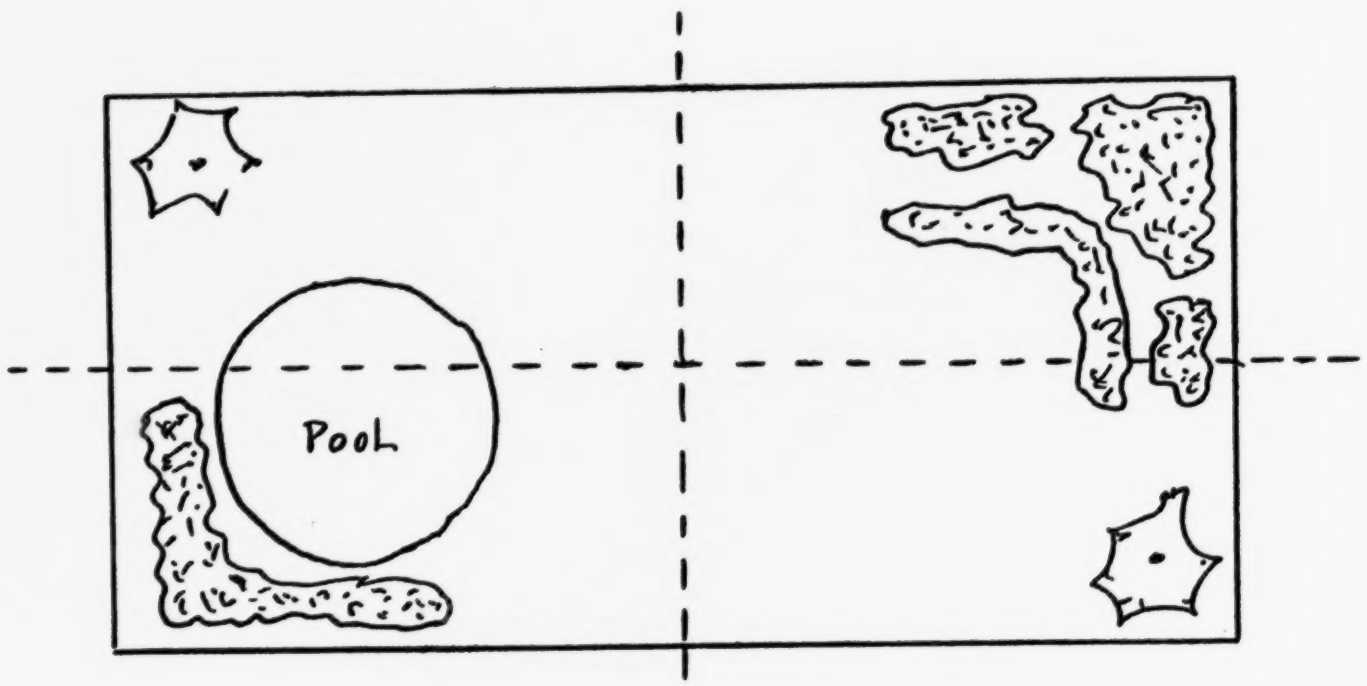


Figure 12. An example of asymmetric balance which has a balance between unlike arrangements. A small area or unit may be used to balance a much larger one if the smaller unit contains greater attraction due to its color, texture, shape or design.

Note to teachers: This short quiz, and other similar quizzes that you will find at the end of the following chapters, is typical of some you may want to prepare while teaching this unit. You may want to duplicate additional copies for class use.

QUIZ --- LANDSCAPE PRINCIPLES

If statement is true, write "T" on space at left of statement; "F", if statement is false.

___F___ 1. Landscape design does not necessarily involve the use of principles of art.

___T___ 2. Mass, color, line or texture must be equalized on each side of a real or imaginary point to satisfy one's sense of balance.

___T___ 3. One is able to achieve simplicity in a landscape design by repeating a few well-arranged forms of plants.

___F___ 4. Using many different kinds of plants is desirable as it gives variety to the design.

___T___ 5. A tall tree beside a two-story house will help to keep the design in proper proportion.

Multiple-choice. Circle the phrase or word that best completes the statement, even though more than one may be correct.

6. Harmony is achieved in a landscape when...

*a. colors of various objects blend together rather than clash.
b. two of one kind of plant are grouped together.
c. rounded plants are grouped with tall, upright plants.
d. similar plants are repeated in the design.

7. In order to achieve contrast, one may...

*a. use a low plant near a tall one.
b. use a low plant near a low plant.
c. use a pine next to a spruce.
d. use a tall plant next to another tall plant.

8. Sequence is a desirable principle to use in a landscape design because...

a. it is a less expensive arrangement.
*b. an orderly, natural combination of landscape materials is pleasing to the eye.
c. it is an easier way to plant.
d. it offers a variety in the choice of plants.

9. Good repetition can be obtained by...

   a. using a low plant near a tall plant.
   b. using a broad-leaf plant next to a narrow-leaf plant.
   c. using several varieties of plants.
   *d. repeating similar plants in several locations.

10. Which of the following is a good example of proper emphasis in a landscape design?

   a. Vertical plants by entrance of a narrow house.
   b. Pyramidal evergreens across end of a tall, narrow house.
   *c. Extended rounded plantings from entrance beyond each corner of a narrow house.
   d. Tall, narrow plants at corners of a tall, narrow house.

CHAPTER II

Selecting Ornamental Shrubs and Shade Trees.

Problem: What shrubs and shade trees should be selected?

Items to Consider:

1. Hardiness of plants.
2. Resistance to diseases and insects.
3. Tolerance of soil conditions.
4. Ease of maintenance.
5. Growth habit and rate.

Basic Information:

1. Hardiness of plants.

Hardiness of a plant refers to its ability to stand sun or shade, wet or dry soil conditions, and its resistance to insect pests and diseases. Plants must also be resistant to wind damage.

2. Resistance to diseases and insects.

The shrubs used in the landscaping design should not be very susceptible to insect and disease enemies that are difficult to control. The Thornless Honey Locust is replacing the American Elm as a popular shade tree in Ohio. The American Elm is almost extinct because of the Dutch Elm disease. Oak wilt and birch borer are serious in some parts of the country. Most insects and diseases of ornamental shrubs can be controlled with sprays.

3. Tolerance of soil conditions.

Soil fertility, acidity, drainage and texture are factors to consider in selecting suitable shrubs and trees. It is best to have the soil tested to determine the pH and nutrient balance. Plants differ in amount of soil nutrients or acidity required for maximum growth. For example, the Hydrangea and the Pin Oak need an acid soil. In contrast, the Sugar Maple needs a rich soil for best growth. The Northern Red Oak can grow in a gravelly or sandy loam soil.

4. Ease of maintenance.

Proper selection in terms of ultimate size of the plant will reduce much heavy pruning. Ease of maintenance is chiefly a problem associated with the kind of leaf, the flower, and the kind of fruit, plus breakage of twigs, etc. For example, the Poplar and the Willow have wide-ranging roots that may break into tile and septic tanks. The Silver Maple has a brittle trunk and may break up in a storm. Trees with nuts and large fruit or pods do not make good lawn or driveway shade since the

falling fruits are messy and will make grass cutting difficult. Desirable shade trees for Ohio include the Sugar Maple, Red Maple, Little Leaf Linden, Cork Tree, Upright Norway Maple, Thornless Honey Locust, male Ginko Tree and the Star Magnolia. Other shrubs and trees that are easy to maintain can be found in the many suitable references available to most people.

5. Growth habit and rate.

In selecting quick growing trees, one should be aware that some are short lived, even though they have the advantage of quick shade. Some of the more rapid growing trees are the Tuliptree, Red Maple, Paper Birch, American Beech, American Linden, Honeylocust, Pin Oak, White Pine, American Ash, Lombardy Poplar, Willows, Chinese Elm, Mulberry, Cottonwood, Hemlock, and other trees of the softwood type.

Some of the more common long-lived trees are the American Elm, Sugar Maple, Hackberry, White Ash, the oaks, the hickory, other nut-bearing trees, and other trees of the hardwood type.

QUIZ: SELECTING ORNAMENTAL SHRUBS AND TREES

Fill in the blanks with the most appropriate word(s):

1. Hardiness of a plant refers to its ability to stand _sun_ or _shade_, _wet_ or _dry_ soil conditions, and its resistance to _insects_ and _diseases_.

2. The _Thornless_ _Honey_ _Locust_ is replacing the American Elm as a popular shade tree.

3. The Sugar Maple needs a _rich_ soil for best growth.

4. Proper selection in terms of ultimate size of the plant will reduce much _heavy_ _pruning_.

5. Quick growing trees are usually _short_ _lived_.

Matching:

_b,g_ 6. Tree not recommended for driveway shade.

_b,c_ 7. A rapid growing tree.

_i_ 8. A desirable shade tree for Ohio.

_c_ 9. Tree noted for a brittle trunk.

_d_ 10. Tree needing an acid soil.

a. American Elm
b. Red Maple
c. Silver Maple
d. Pin Oak
e. Sycamore
f. Walnut
g. Hickory
h. Willow
i. Sugar Maple

CHAPTER III

Landscaping the Public Area.

Problem: How should the public area of the property be landscaped?

Items to Consider:

1. Function of public area.
2. Location of walk, road, driveway, walls fences and other structures.
3. Height, width of house and room arrangement and location of doors.
4. Location of utilities.

Basic Information:

1. Function of public area.

The public area should primarily serve as a setting for the house, providing a year-round natural and pleasing appearance. The public area usually consists of the front yard with its driveway, walks, fences, and lawn.

The public area should provide easy access to garage, front entry, service entry, plus a private parking area.

In general, the plantings in this area should soften architectural lines of the building, frame the building with trees, and maintain open lawn areas. The area could also be landscaped to help control climate. See Figures 13 and 14.

2. Location of walks, road, driveway, walls, fences and other structures.

The landscape design for the public area will be greatly affected by the location of structures such as walks and driveways. The driveway should provide as direct an access to the garage as possible. The shortest distance between two points is still a straight line.

The driveway can also serve as a walk from the road to the front door. If used as a walk, the driveway needs to be at least ten feet wide. Adjacent to the garage, a parking area should be planned. The parking area should be within fifteen feet of the house to tie the house and driveway together. The parking area should be large enough to accomodate the family cars plus the usual number of visitors at any one time. Allow a ten foot space for each car. See Figure 15.

Don't accentuate walks and drives. They should be as inconspicuous as possible. Don't cut up the front lawn with walks and circular drives. Usually, flower borders along walks and drives make them stand out too much. Also, thorny plants along walks are definitely taboo. See Figures 16 and 17.

3. Height, width of house and room arrangement and location of doors.

The height and width of the house should determine the size of the public area. The lawn should be in proportion to the house. A big house needs a big lawn; a small house, a smaller lawn. Narrow lawns are not attractive in front of a wide house.

An open lawn, offering an unobstructed view to the house, is most effective as a setting for the house. Fences around the yard, flower beds and walks that cut up the lawn, are not desirable. Iron reindeer, statues, bird baths, etc., are taboo.

A design for the public area should be simple for ease of maintenance and attractiveness. A good landscape composition around the house will be composed of (a) a proper background, (b) a good enframement, (c) well placed accents, and (d) an attractive foreground.

The center of interest and balance point for all public area plantings is the front doorway. Window and door location, porch arrangement and other architectural features must be studied to arrive at a balance of all these elements when designing the landscape plan.

(a) Proper background and a good enframement:

A proper background softens the silhouette of the house against the sky. Background trees will give the appearance of the house nesting in the foliage. These trees are also used for shade. See Figure 18.

Deciduous trees are best for a background because their dense foliage provides shade in the summer and their lack of leaves in winter allows the sun's rays to help heat the house. If possible, locate the trees so that rooms to the south, southwest and west are shaded.

Trees should be used to frame the home. Frame your house to concentrate the house from its surroundings just as a frame makes a picture more attractive. A large house needs a large frame. Small to medium size deciduous trees, up to 35 feet in height, should be used for low ranch type houses or on smaller properties. For a small house, use large trees in rear as a background, and small to medium sized trees in front. See Figure 19.

Except in special cases, trees should not be planted in a straight line. Trees to be used for framing should be on a diagonal from the front corners of the house; that is, to the sides and front of the house, but not on a line continuing from the base lines of the house. Trees for framing should be 20 feet or more from the house. Large trees too close to a house may loosen roofing, mar paint and clog gutters with leaves.

(b) Plan well placed accents and an attractive foreground:

A good landscape composition around the house will include well-placed

"accent" plants that will draw attention to the important parts of the home, such as the front entrance.

Plants are also used to draw attention away from unsightly parts of the house, such as high foundations or a large front porch. These plants are referred to as "foundation plantings." They also modify unpleasing proportions in the buildings, soften harsh corner lines of buildings and help to blend the house with the ground. See Figure 20.

There are several basic rules of thumb to follow in designing the foundation plantings. The tallest shrubs are usually at the corners of the house, but should be no higher than two-thirds the distance from the ground to the eave. Usually this will come to about the middle of the first floor window. See Figure 21.

Plants at the entrance should not be higher than one-fourth to one-third the distance from the ground to the eave. Low rounded plants work well on both sides of the entrance. A dense, slow-growing evergreen may accomplish this purpose. See Figure 22.

The taller plants at the corners and the lower plants at the entrance-way form a concave line that directs the eye to the doorway. Too tall a plant at the corner over emphasizes the height of the building. Columnar plants at the corners tend to over emphasize the vertical lines. If the house is a big, stone type, round shaped plants should be used on the corners. Broad plants tend to "hold down" a two-story house. See Figure 23.

If the house is a tall, narrow two-story one, it can be made to look wider and lower by extending the foundation plantings to add plant "wings" to the building. These wing plantings serve to "funnel" the view from the street toward the house and center it on the main entrance door. Deciduous and evergreen plants may be mixed for the corner planting to give winter interest. A typical winged corner planting is illustrated in Figure 24.

In most cases, don't cover a picture window with the foundation planting. Shrubs planted under windows should be kept lower than the ledges of the window to avoid an overgrown look. Special attention should be paid to the mature height of the plants for this area. Many shrubs will soon cover the window. See Figures 25 and 26.

If the picutre window is extremely low, it is not usually a good idea to plant under it. Also, it is unnecessary to frame a large picutre window with an upright evergreen on each side. The window already has all the framing it needs for good design. Framing it with plants is like putting two frames around a picture you have in your own home.

Use a variety of plants in the foundation planting. The best overall planting is made up of a combination of broadleaf evergreens, neddle evergreens, and deciduous shrubs. This combination provides for a variation of interest with seasonal changes. The deciduous shrubs should be of the rounded, horizontally branched types. See Figure 27.

Deciduous shrubs and evergreens should be planted far enough away from the building to permit air movement and to prevent damage to the paint. For a more pleasing effect, vary the distance each plant is from the house. Ground cover can be used between planting and foundation.

(c) Location of utilities:

Large trees should never be planted directly underneath power or telephone lines. They will soon grow up into the wires. If possible, keep the trees at least 20 feet to the side. This will probably mean planting the trees inside the sidewalk on private property, since most power lines in the city are between the sidewalk and the street. Locate the trees so they will frame the building. Avoid setting a tree directly in front of a building where it will block the view or interfere with traffic to and from the building. See Figure 28.

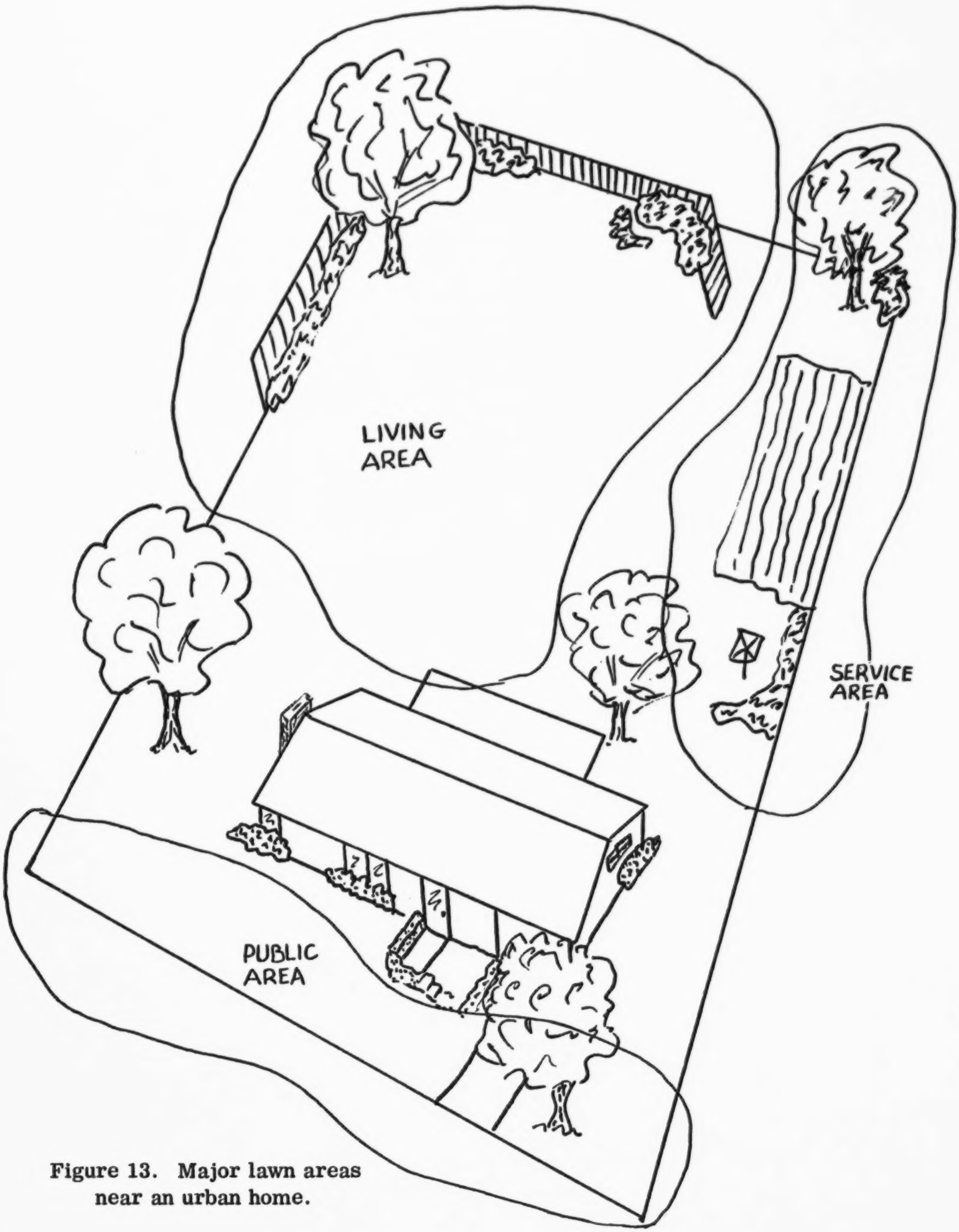


Figure 13. Major lawn areas near an urban home.

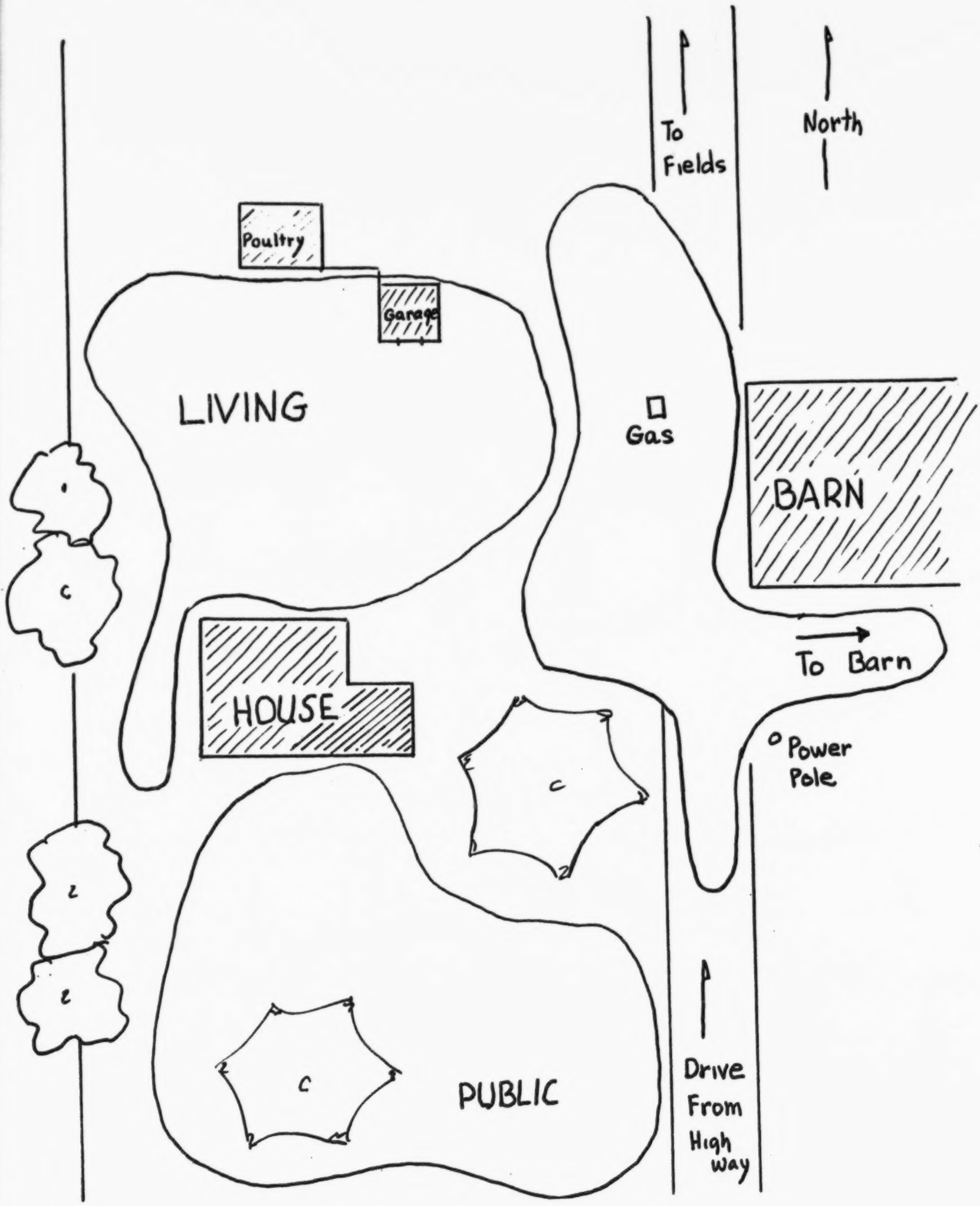


Figure 14. Major lawn areas near a farm home.

Figure 15. Providing guest parking areas.

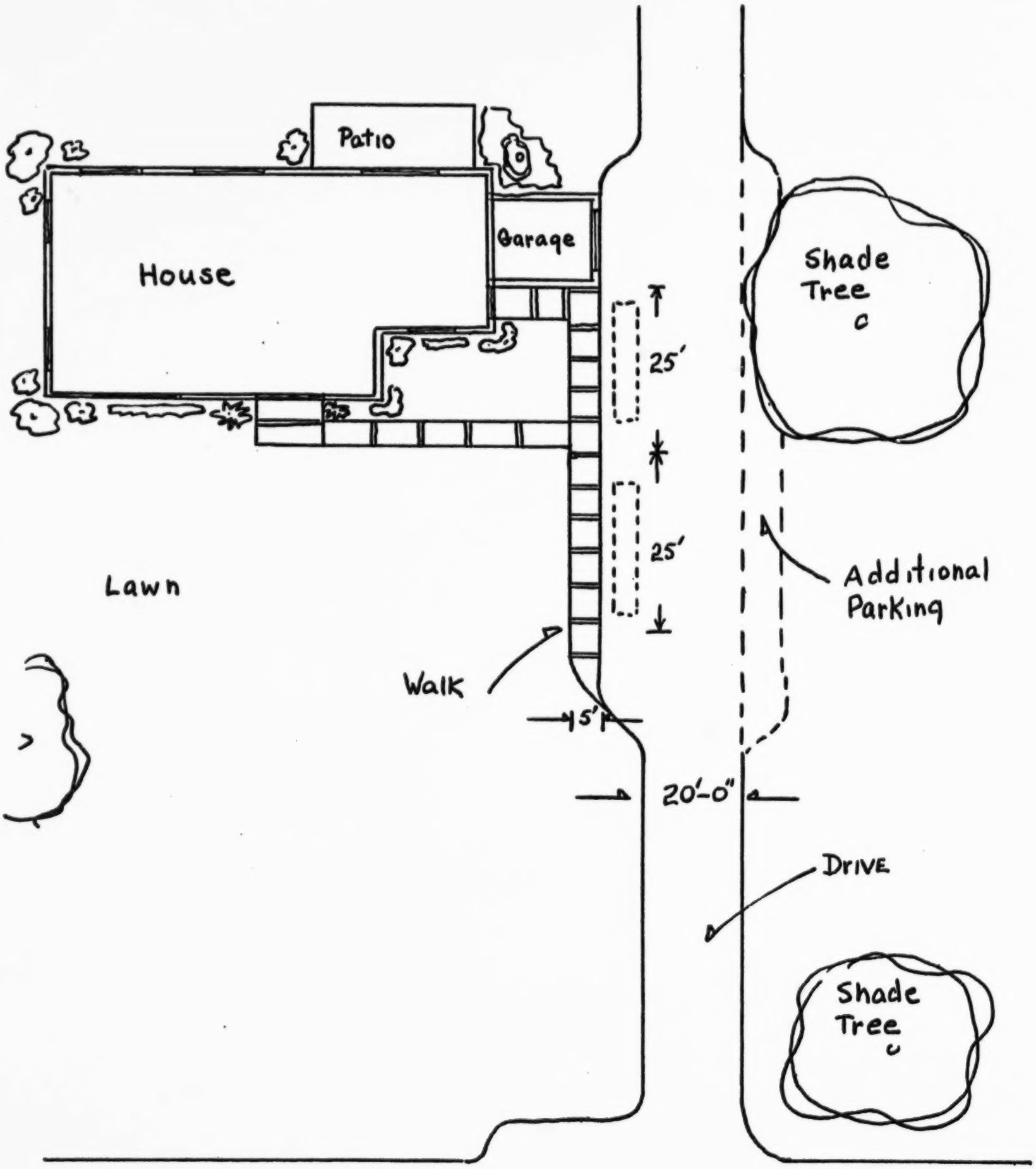
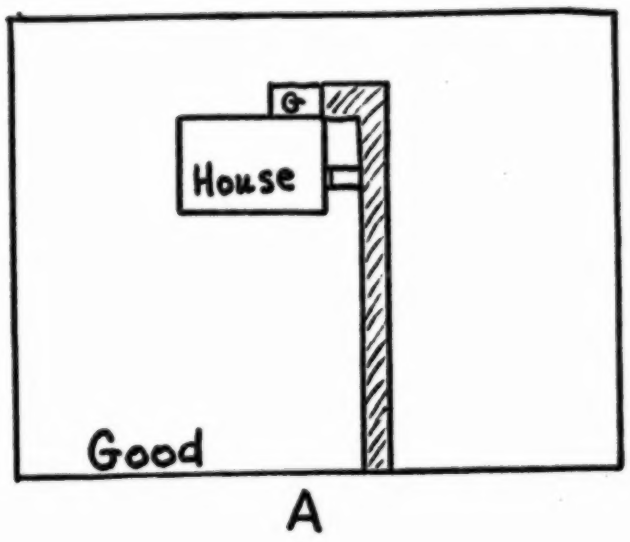
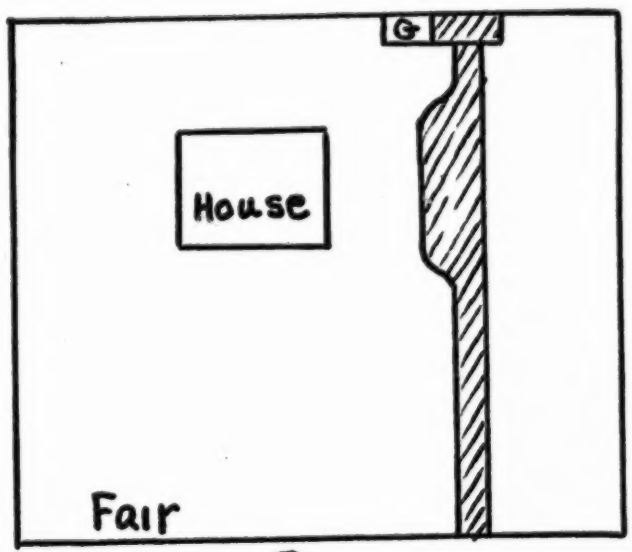


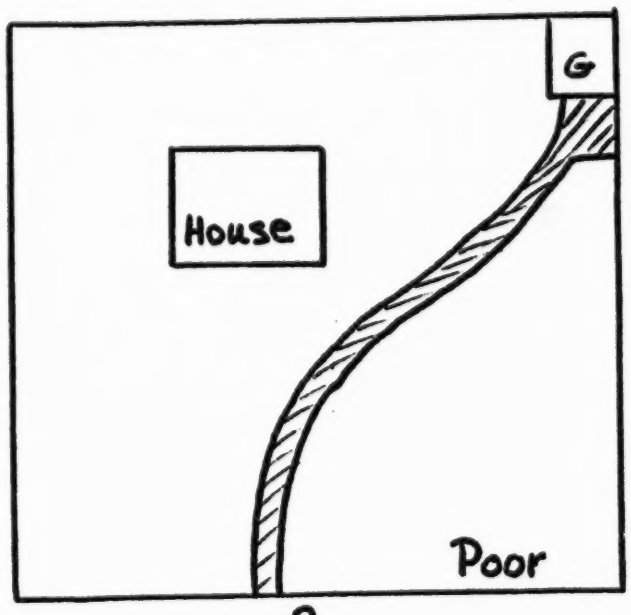
Figure 16. Placement of drives.



A

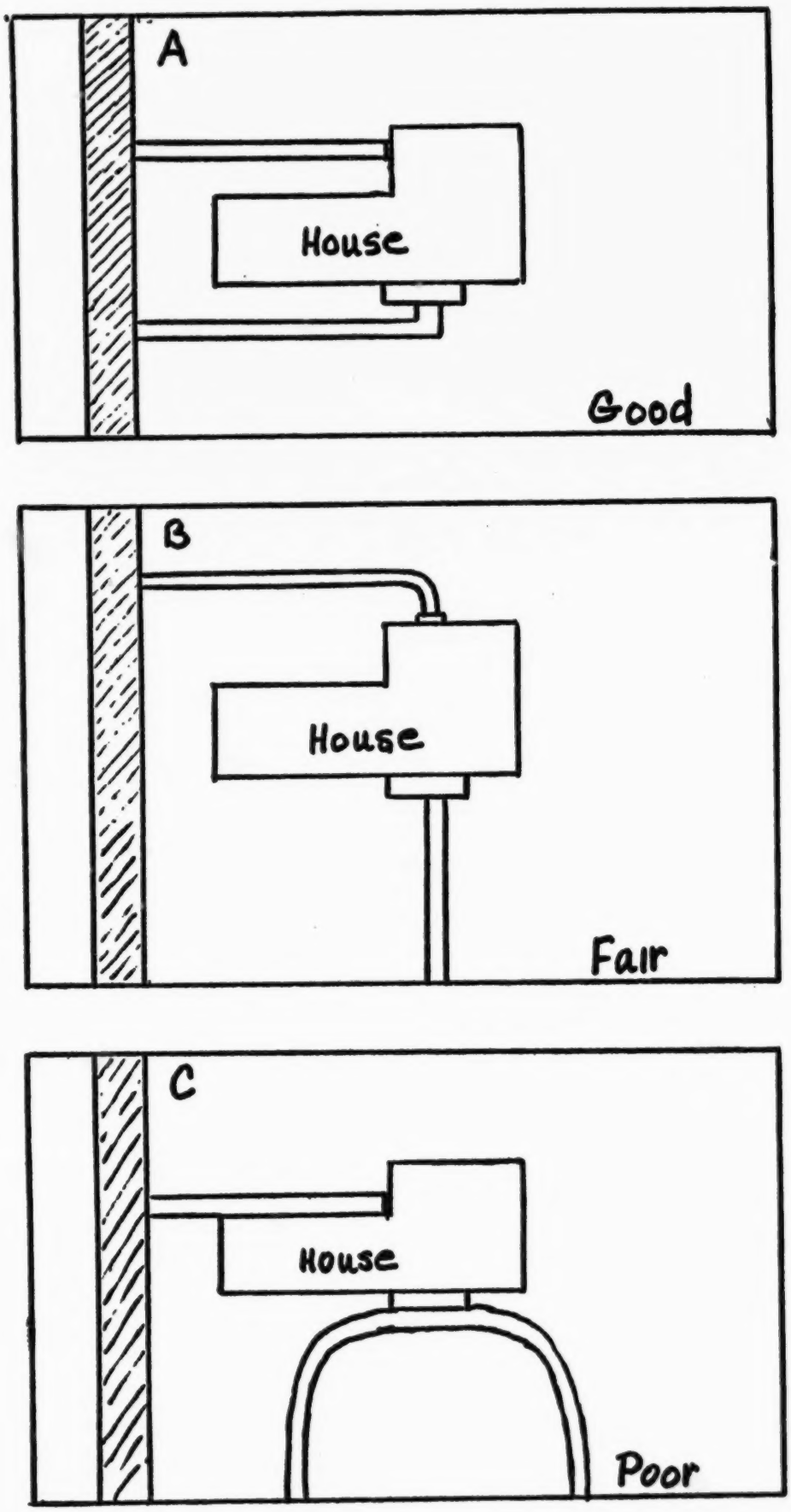


B



C

Figure 17. Placement of walks.



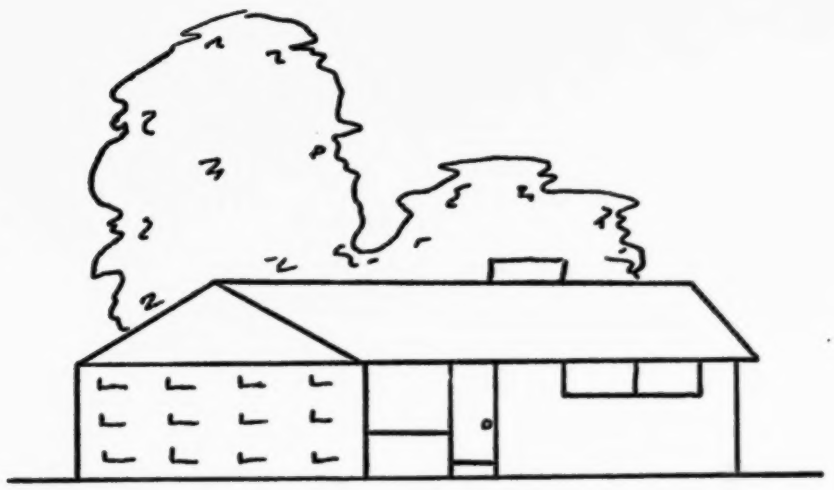


Figure 18. Background trees soften the silhouette of the house against the sky.

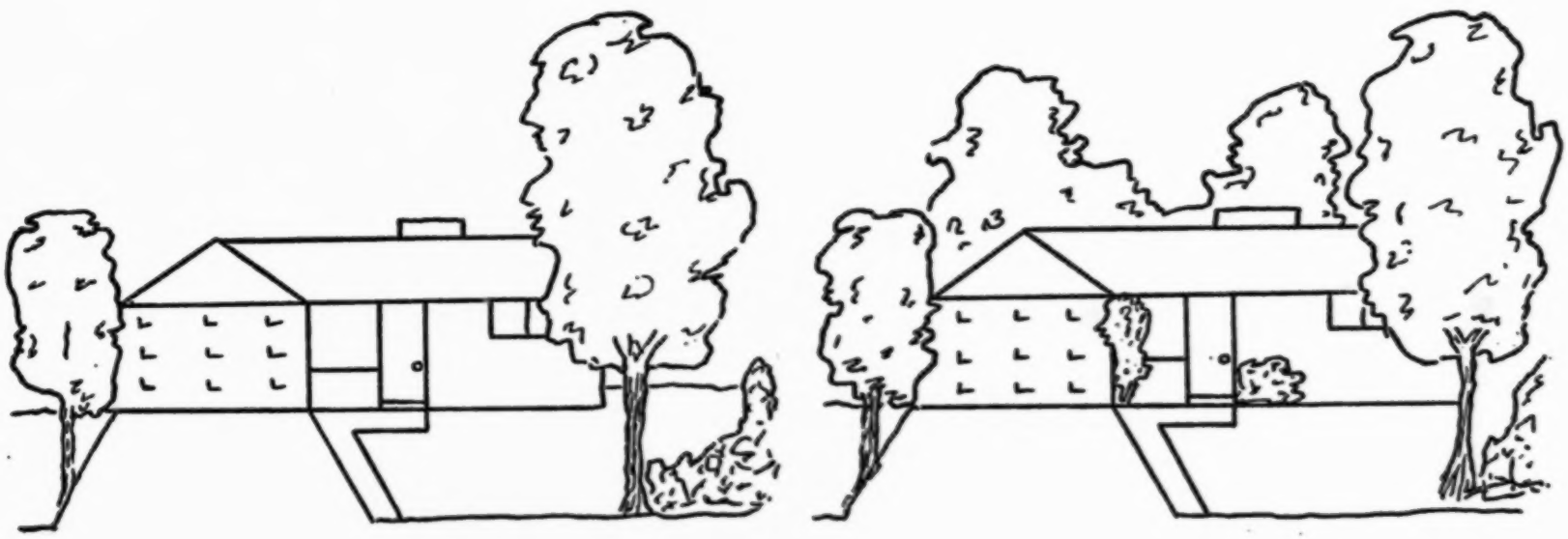


Figure 19. Use of trees to frame the house.

Wrong Right

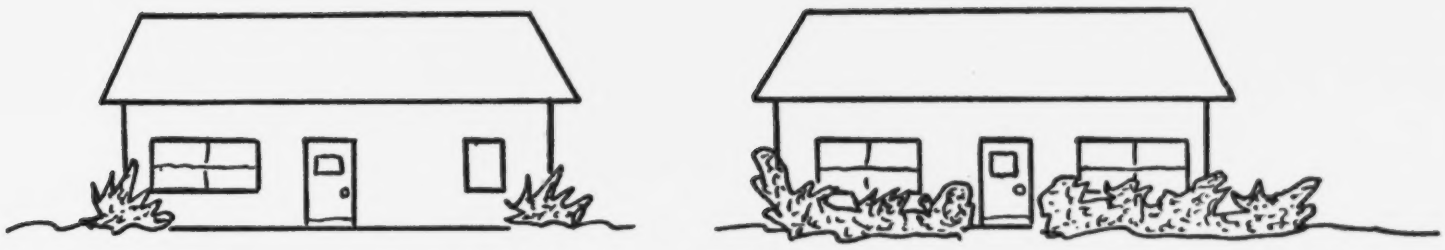


Figure 20. The house built low to the ground (left) needs a minimum planting while the house with the high foundation (right) needs bushes and trees with spreading shapes to root it to the ground.

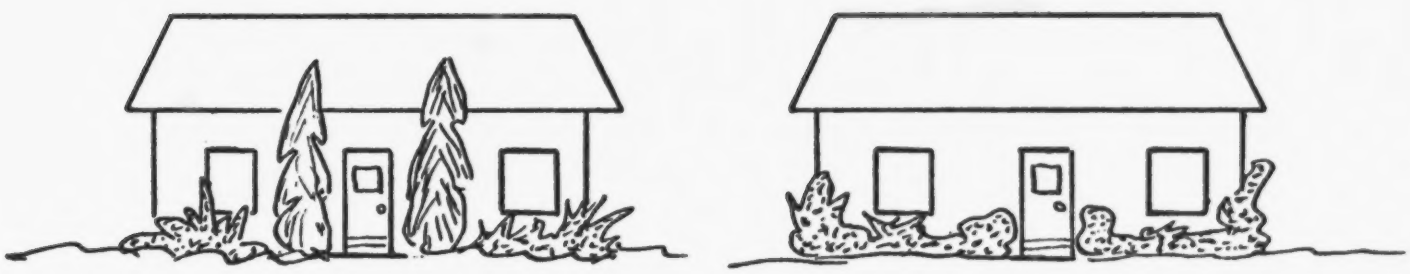


Figure 21. Foundation plantings should generally have a saucer shape, with the highest points at the corners of the house, not in the center.

Figure 22. Basic types of doorway planting for ranch-style houses.

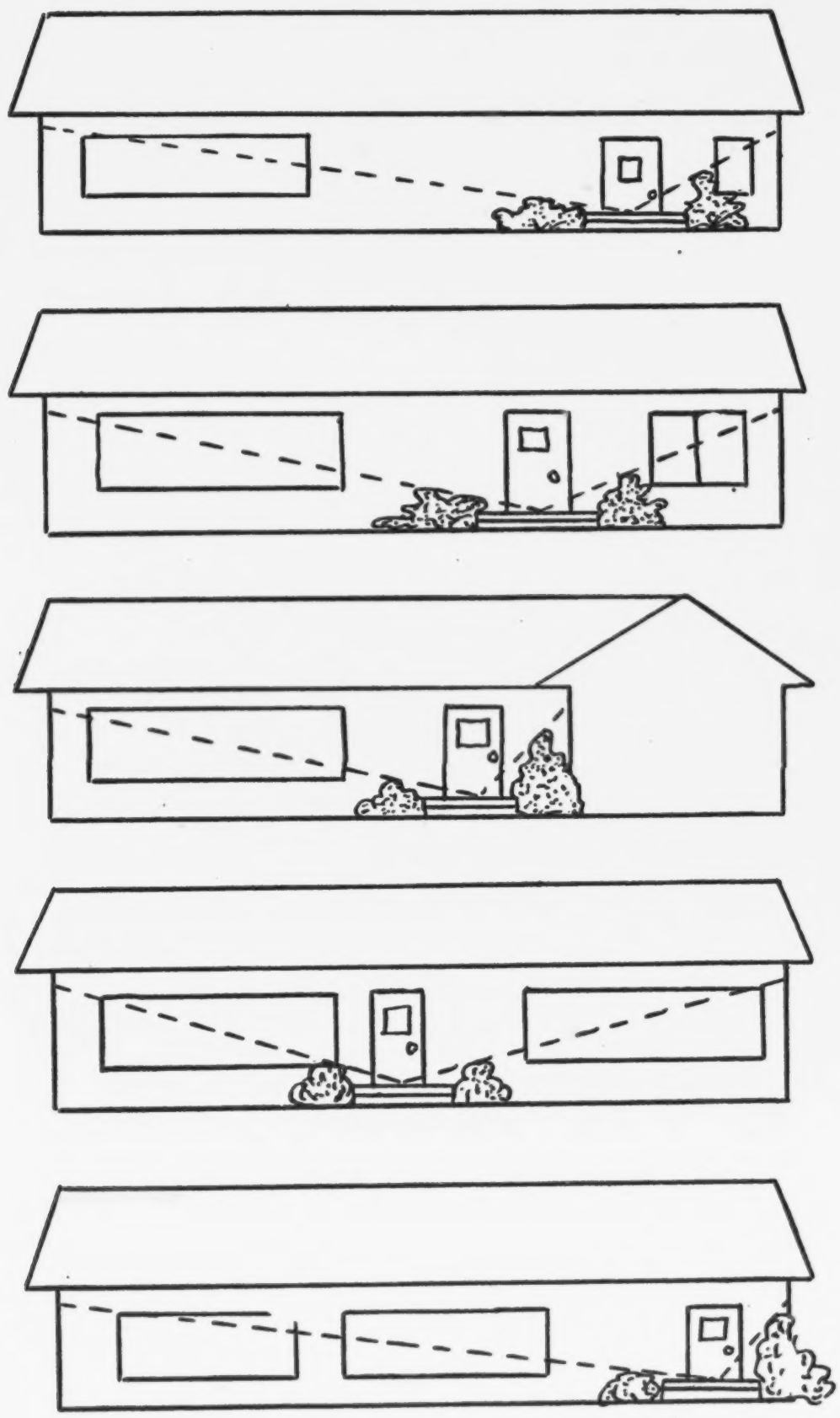
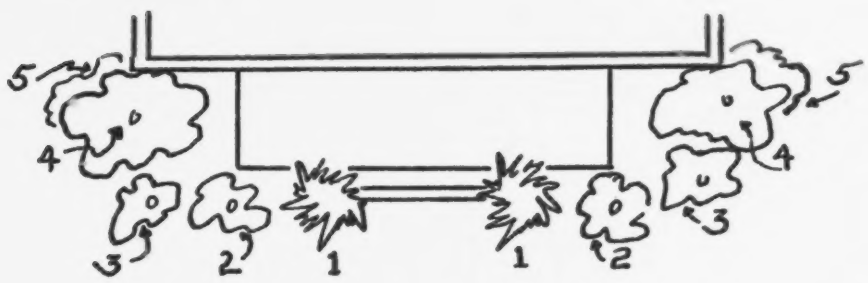


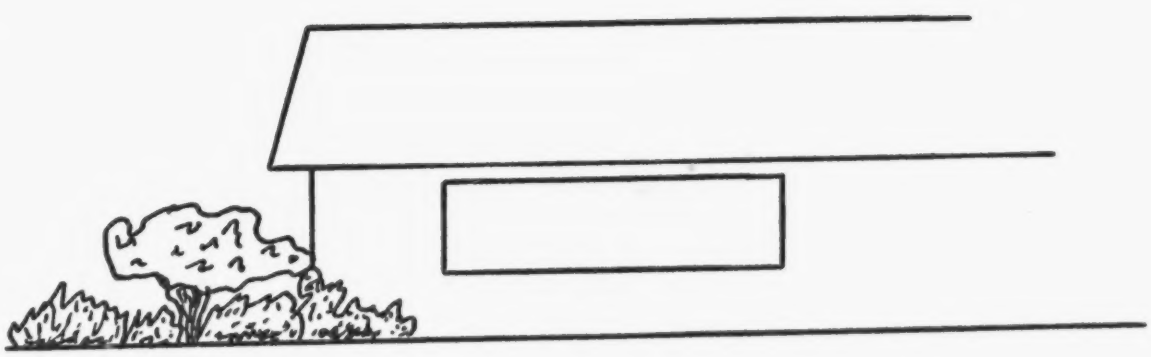
Figure 23. Doorway plantings for two-story houses with dominant porches.

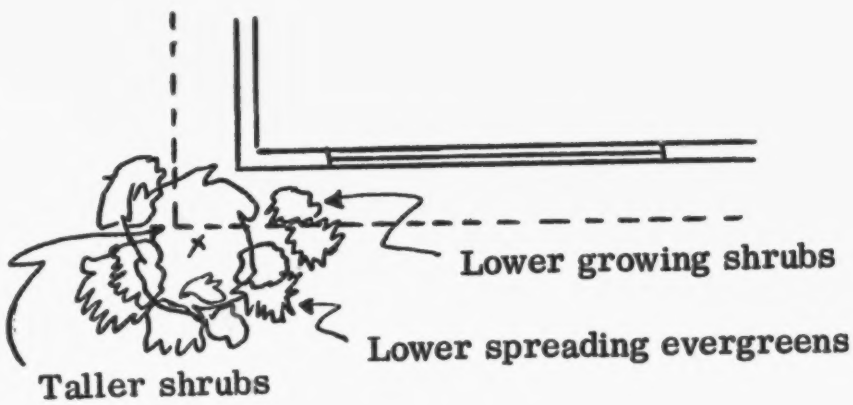


Suggested Plantings

1. Brown Yew.
2. Glossy Wintercreeper.
3. Koreanspice Viburnum or Dwarf Winged Euonymous.
4. Viburnum.
5. Periwinkle (under 4).

Figure 24. Suggested corner plantings for low homes.





For a pleasing transition between dominant vertical and horizontal lines, use taller shrubs with lower growing types. Low-spreading evergreens may also be used with the lower growing shrubs.

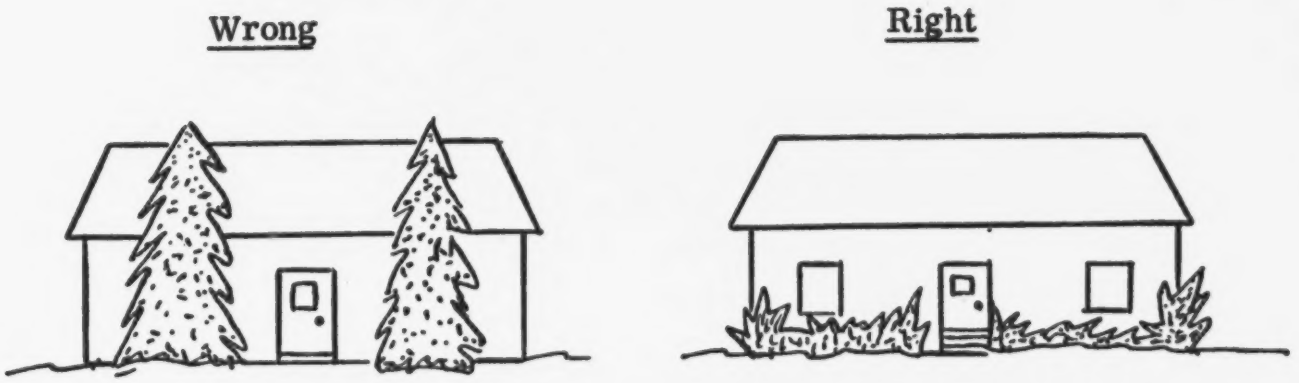


Figure 25. Use spreading, rather than upright, shrubs under windows. Although small when purchased, many shrubs can soon dwarf the house and block light.

Figure 26. If your picture window has an unattractive view, frame a view with trees and shrubs. They will help muffle road noises, screen the view and provide some privacy.

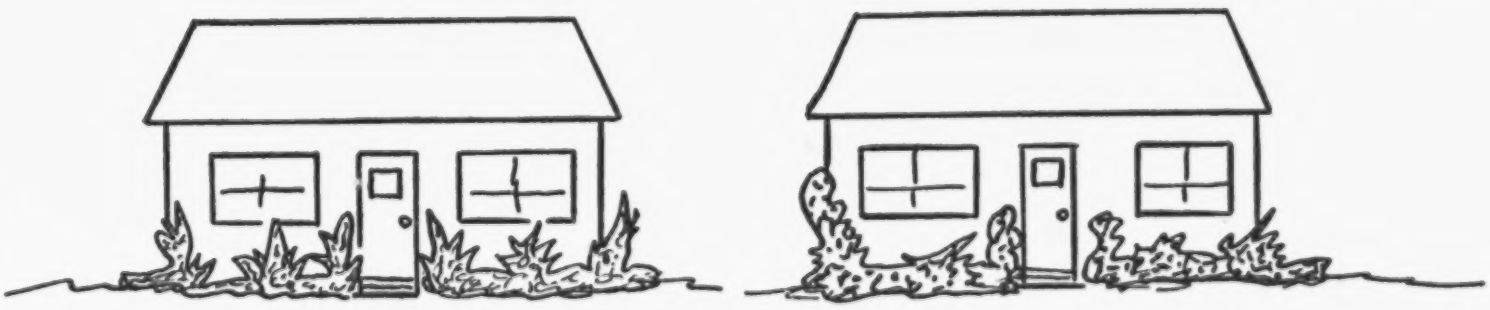
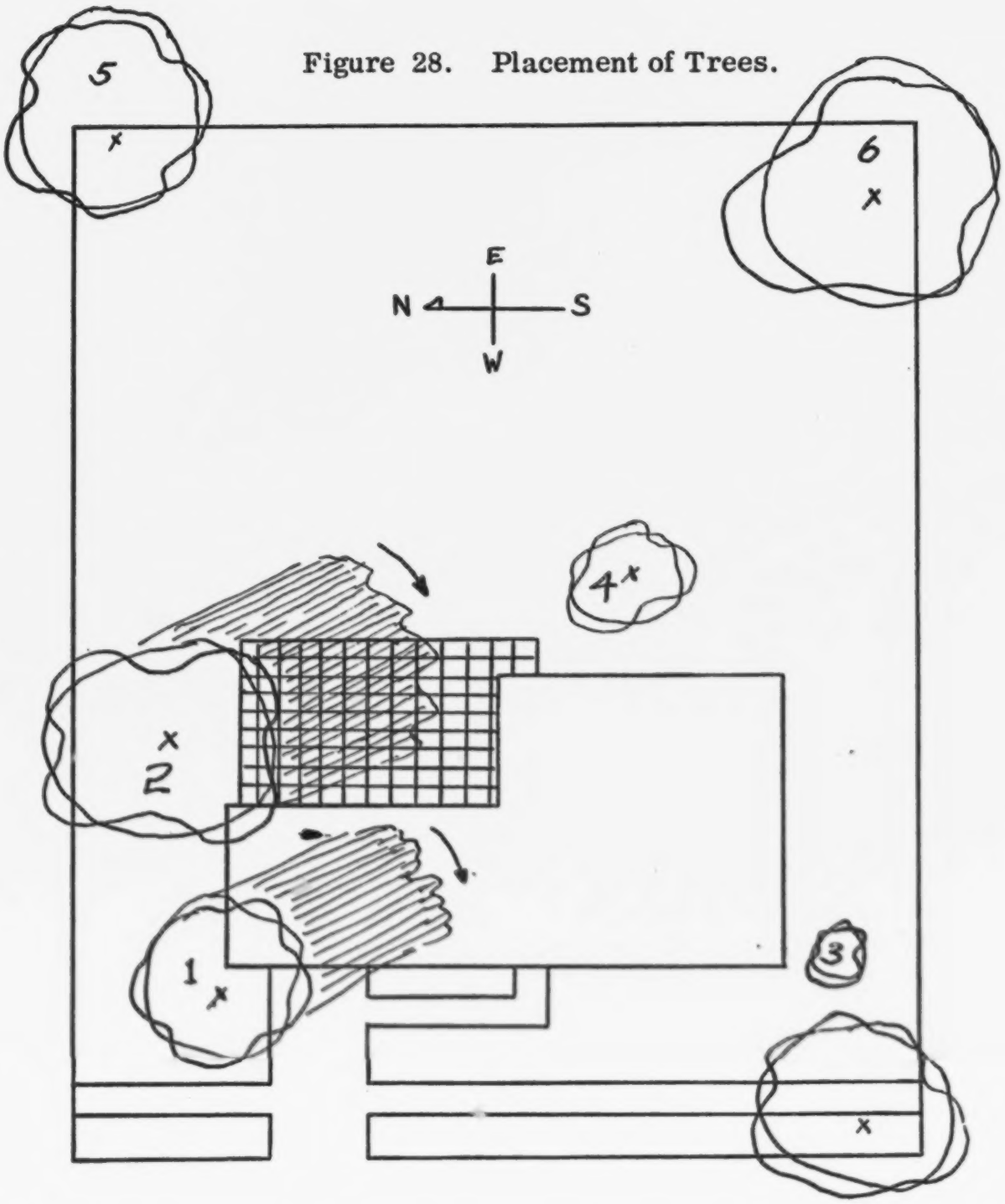


Figure 27. Although symmetrical "balance" is desirable in the plan for a symmetrical house, don't use symmetrical "plantings" in all areas. They're boring. Instead, contrast varied plant forms to gain eye-arresting arrangement.

Figure 28. Placement of Trees.



This sketch shows street trees between the walk and curb. Tree No. 1 will shade the driveway from early afternoon to evening. Tree No. 2 will shade the terrace from early afternoon to evening. The two arrows in the shade of trees 1 and 2 indicate the direction the shade will move during the afternoon. These areas require shade from a large tree during the hot time of day.

Tree number 3 is for accent or balance purposes. They may be spring or summer flowering or have colored summer foliage. Tree No. 4 is an important part of the terrace area and should have interest during the outdoor season.

Tree No. 5 is a summer flowering or a tree with special form, fruit, or bark characteristics during the season for outdoor activities. Three trees can be used in a clump instead of only one. Tree No. 6 is an evergreen, out of the way but still an important interest feature in all the season.

QUIZ --- LANDSCAPING THE PUBLIC AREA

Completion:

1. The public area should primarily serve as a setting for the house .
2. The public area should provide easy access to the front entry .
3. The parking area should be within 15 feet of the house.
4. Walks and drives should not be accented .
5. An open lawn is most effective as a setting for the house.

Multiple Choice:

6. The center of interest and balance point for all public area plantings is the...

   a. front lawn.
   *b. front doorway.
   c. corner plantings.
   d. front porch.

7. A proper background for the house...

   *a. softens the silhouette of the house against the sky.
   b. makes the house look larger than it really is.
   c. is necessary for shade.
   d. should always be composed of evergreen trees.

8. A house should be framed with trees...

   a. for proper scale and proportion.
   b. to make it look nice.
   *c. so that one's interest is concentrated on the house.
   d. in order to have shade.

9. The tallest shrubs in the foundation planting should be placed...

   *a. at the corners of the house.
   b. on each side of the front entrance.
   c. next to the shortest ones.
   d. between the entrance way and the corners.

10. The best over-all foundation planting...

    a. should be mostly deciduous plants for Ohio areas.
    b. should be mostly evergreens because they stay green in the wintertime.
    c. either all evergreen or all deciduous.
    *d. should be made of a combination of broadleaf evergreens, needle evergreens and deciduous shrubs.

CHAPTER IV

Landscaping the Living Area.

Problem: How should the living area be landscaped?

Items to Consider:

1. Function of the living area.
2. Building layout.
3. Type and amount of recreation equipment desired.
4. Plants to use.

Basic Information:

1. Function of living area.

The private or living area of the lawn should provide for outdoor rest, relaxation and entertaining in reasonable privacy. This area is usually located at the rear or at the side of the house, making it accessible from both the back and front doors. See Figures 13 and 14.

The private area can include terraces, patios, lawn, children's play area, space for croquet, badminton, and other games. By virtue of its function, it must include fences, hedges, or screens for privacy.

2. Building layout.

Location of the living area is usually at the rear or side of the house. This makes it accessible from both the back and front doors. This prevents having to carry parcels and other necessities long distances from the car to house. A location such as this also provides easy and convenient access to kitchen facilities, making the area more functional.

3. Type and amount of recreation equipment desired.

A level, open-centered lawn area will prove to be the most useful and practical. A level lawn is practical for recreational purposes. The lawn area should be free from scattered shrubs and ornamental structures such as gazing globes, bird baths and other destracting elements. These break up the area and add to maintenance. If shade is desired, a specimen tree or two may be used. The sitting area is usually located by the trees.

A good sized unbroken grass area large enough for games is at least 50 by 80 feet. This provides enough room for croquet, badminton, and other similar games.

4. Plants to use.

Annual or perennial flowers can be planted in 5-foot-wide borders along the boundary line enclosure. The background for the flowers may be a wooden wall, fence or a live fence of shrubs.

Use a variety of plants in the border. Use several plants of a few varieties. Repeat the shrubs that are selected, in groups. Use tall and medium shrubs for corner plantings. Keep all plants in scale with the house. Avoid a too jagged or too regular skyline.

In screening your living lawn area, especially in town, consider your neighbors. There are two sides to every fence. Show your neighborliness by selecting a style of fence or planting arrangement that is equally attractive from either side.

The large shrubs are used for screen plantings. These include Forsythia, Honeysuckle, Mockorange, Privets, Hydrangeas, Lilacs, and such small trees as Japanese and Amur Maple, Flowering Dogwood, Hawthorn, Crab-apple, Sweetbay Magnolia, and Redbud. These plants take more room than a fence or wall, but they have the advantage of color and texture variations. Evergreen screens provide more privacy in winter but do not afford the variety of twig and flower color of deciduous plants.

QUIZ --- LANDSCAPING THE LIVING AREA

True & False:

__F__ 1. The living area includes the front entrance to the house.

__T__ 2. The living area is usually at the rear or side of the house.

__T__ 3. A level, open-centered lawn area is best for the living area.

__F__ 4. The type of fence used around the area is entirely the owners choice.

__F__ 5. Evergreen shrubs provide plenty of variety of twig and flower color when used as screens.

Matching:

__b__ 6. Suitable background for annual flowers.

__f__ 7. Shrub suitable for screen plantings.

__e__ 8. Size of lawn area needed for outdoor games.

__h__ 9. Kind of shrubs for corner plantings.

__i__ 10. Materials to avoid in lawn area.

a. Perennial flowers
b. Wooden wall
c. 80 x 150
d. 50 x 180
e. 50 x 80
f. Honeysuckle
g. Spirea
h. Tall shrubs
i. Short shrubs
j. Statues

CHAPTER V

Landscaping the Service Area.

Problem: How should the service area by landscaped?

Items to Consider:

1. Function of the service area.
2. Building layout.
3. Plants to use.

Basic Information:

1. Function of service area.

The service lawn or work area provides space for services such as delivery of coal, hauling of trash, clothes lines, vegetable garden and play area for the children.

2. Building layout.

The location of the service or work area is usually back of the house. It should be convenient to the kitchen or back door and be of easy access to the barn and other buildings. The garage and driveway should be a part of this area, if possible.

The service area should be located so that the clothes lines are close to the kitchen door. The clothes lines should be located where no one has to walk or play under them. The lines should run east and west to lessen the chance of the clothes wrapping around the lines. The clothes lines need plenty of sun and good air circulation. The clothes drying area should be out of sight from the drive, street, or road.

Since the mother will usually spend considerable time in the service or work area in warm weather, especially if the vegetable garden is included in the area, provision for a children's play area should be made. The play area should be seen from the kitchen window. It should have some shade and be temporarily fenced. The back door should be included in the fenced area so children can go in and out of the house at will.

3. Plants to use.

The only plants necessary in this area would be trees for shade or shrubs to screen the area from the road. The screening shrubs mentioned in landscaping the living area can be used to screen the service area.

QUIZ --- LANDSCAPING THE SERVICE AREA

Matching:

__j__ 1. Location of service area.

__m__ 2. Should be visible from kitchen window.

__c__ 3. Included in fenced area.

__a__ 4. Potential safety hazard in area.

__d__ 5. Possible shade tree for area.

__n, o__ 6. Shrub to use for screening.

__q__ 7. Direction to run clothes line.

__s__ 8. Considered a part of this area.

__a__ 9. Should be out of sight of road.

__1__ 10. Easily accessible from service area.

a. Clothes line
b. Vegetable garden
c. Back door
d. Norway Maple
e. Poplar
f. Upright yew
g. Dogwood
h. Front of house
i. Side of house
j. Rear of house
k. Driveway
l. Barns
m. Play area
n. Mock orange
o. Privet
p. North & south
q. East & west
r. Front door
s. Garage

Plan A Good Curb View

1. Design a landscape plan for the front of the house shown in Figure 29.
2. Place the plants (trees, shrubs, ground cover, etc.) in appropriate places.
3. Use the suggested sketching symbols as found on the next page.
4. To indicate the name of the plant, its color, height, etc., make a chart. You may want to place a letter number on the plant symbol.

Example:

Then list this letter as a part of your chart. Example: A - Golden Twig Dogwood, 4' - 6', white,

5. Use any of your reference material for assistance.
6. Follow the basic principles of design and composition that we have discussed in class.
7. Keep your plant symbols in proper scale or proportion to the house and lawn.

SYMBOLS TO USE IN SKETCHING

1. Ground covers (used for shade where grass will not grow).

Top View

Side View

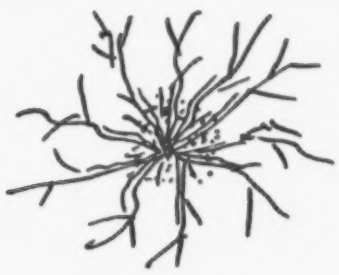
2. Low-growing shrubs (these plants can't be walked over, but are below eye level.)

Deciduous Evergreen

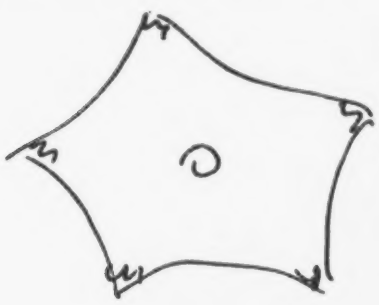
Deciduous Evergreen

3. High shrubs (can't be walked over or seen through or over).

4. Specimens (may be alone or placed against a background of other plants).



5. Shade or canopy trees.



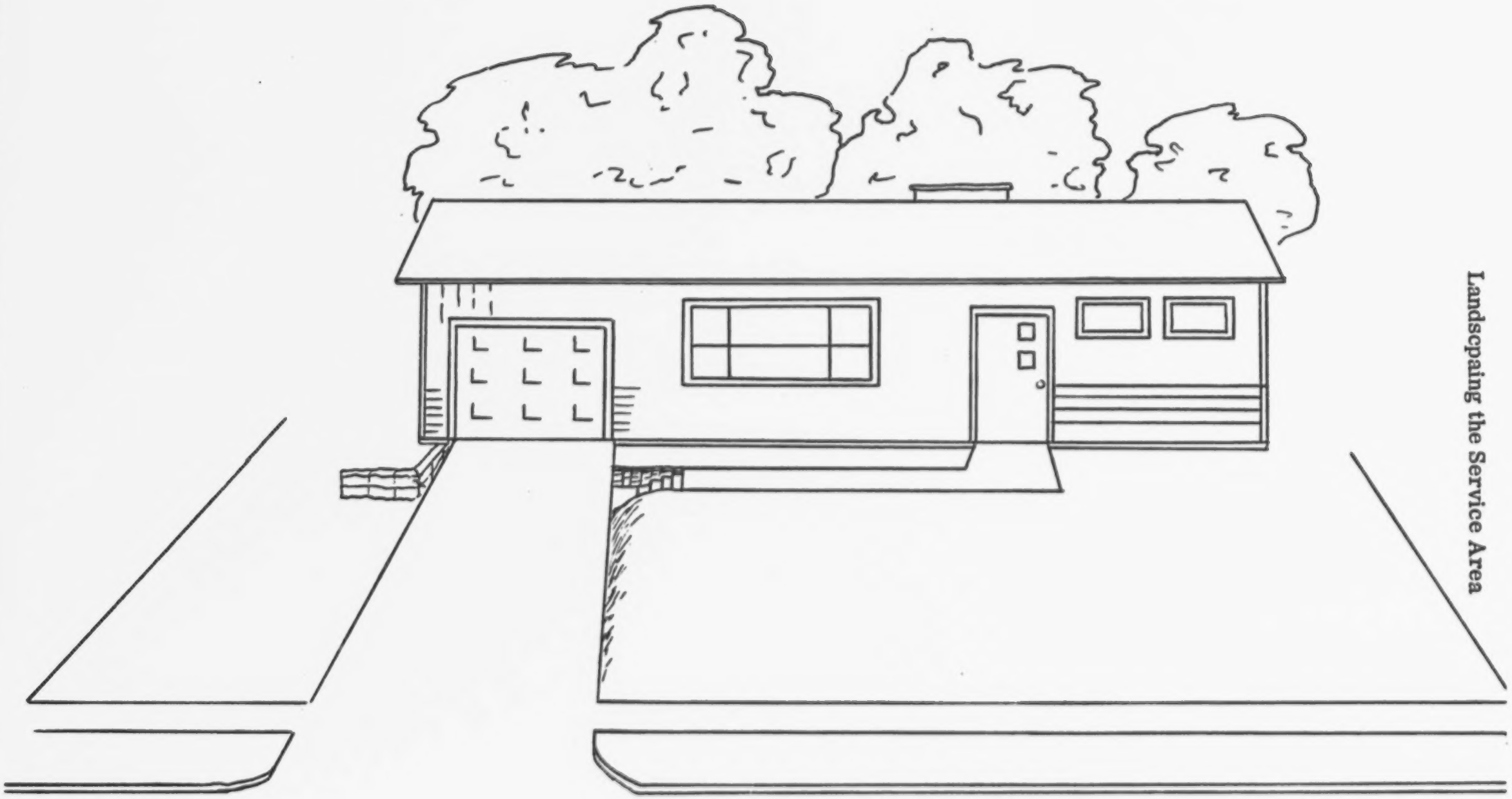


Figure 29. Student exercise in landscape design for a modern ranch-type house.
(scale: 1 inch = approximately 10 feet)

1. Upright Taxus Hicksi
2. Andorra Juniper
3. Dwarf Flowering Quince
4. Slender Deutzia
5. Glossy Abelia
6. Bowles Common Perriwinkle
7. Eastern Redbud
8. Goldenraintree
9. Norway Maple
10. American Sweetgum

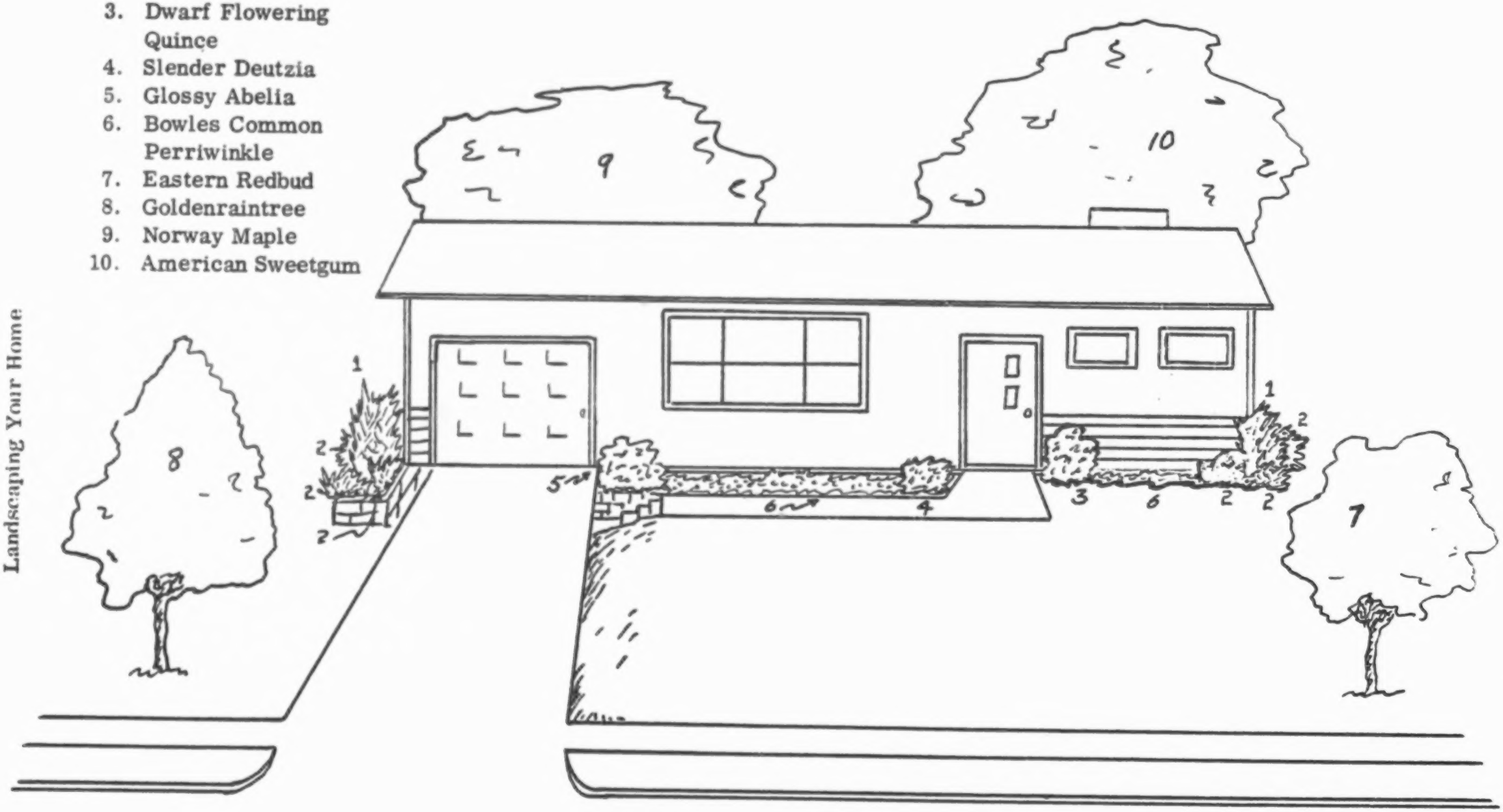


Figure 30. This is the answer to Figure 29.

Figure 31. This is a student exercise in landscape design for a two-story house of the type built about 1910.

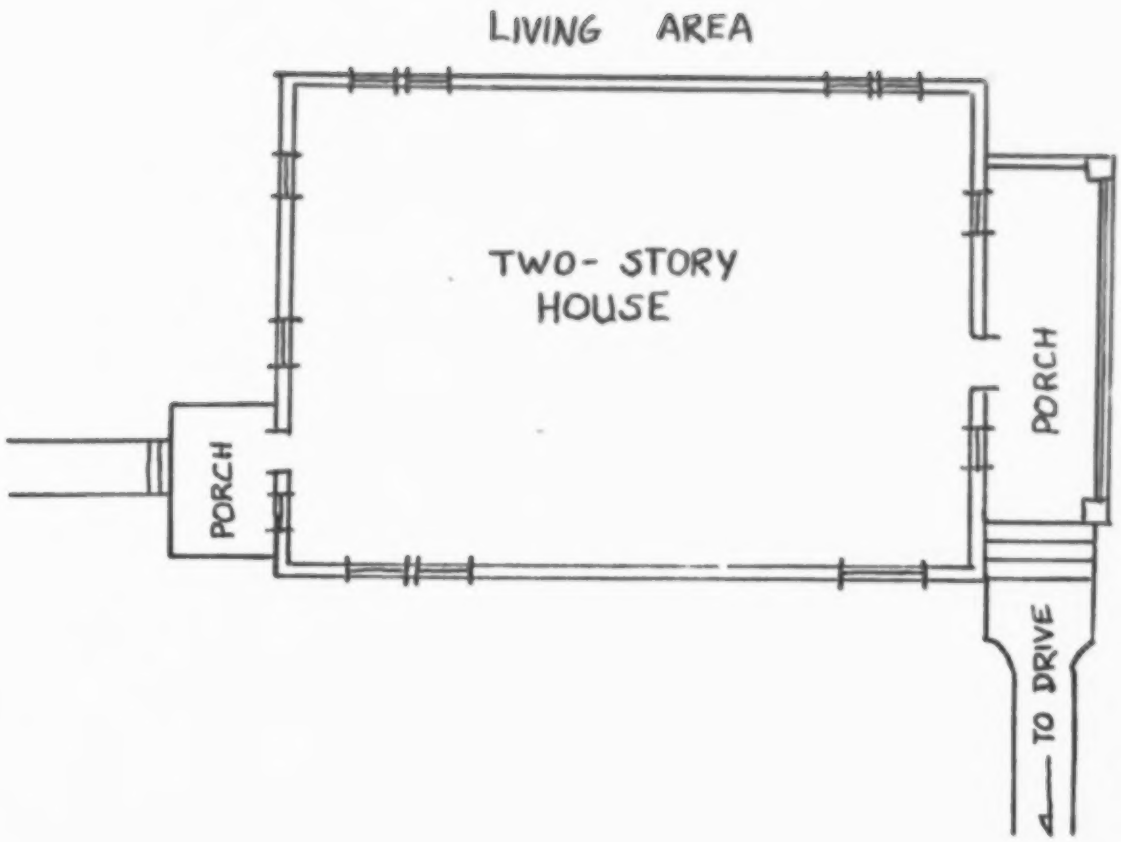
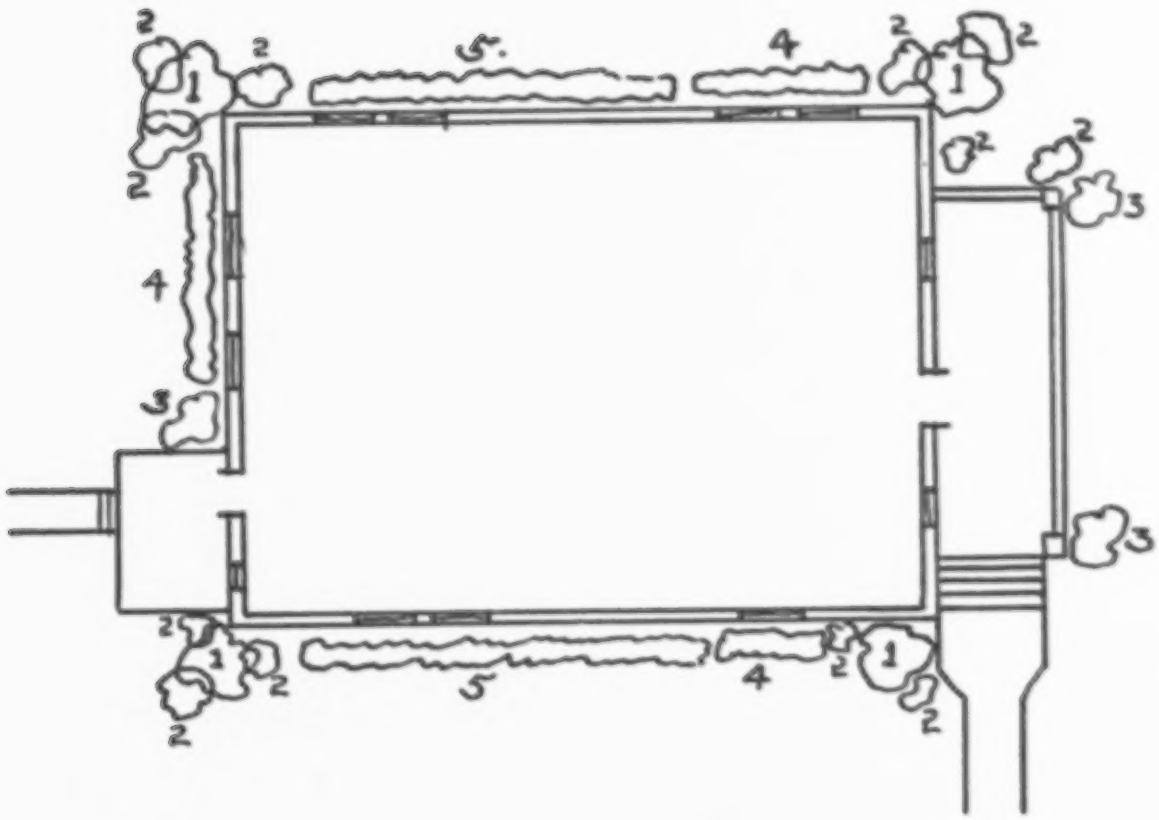


Figure 32. This is a suggested solution to the landscape design for the student exercise in Figure 31.



Suggested Planting

1. Burkwood Viburnum
2. Slender Deutzia
3. Common Flowering Quince
4. Mentor Barberry
5. Froebel Spirea

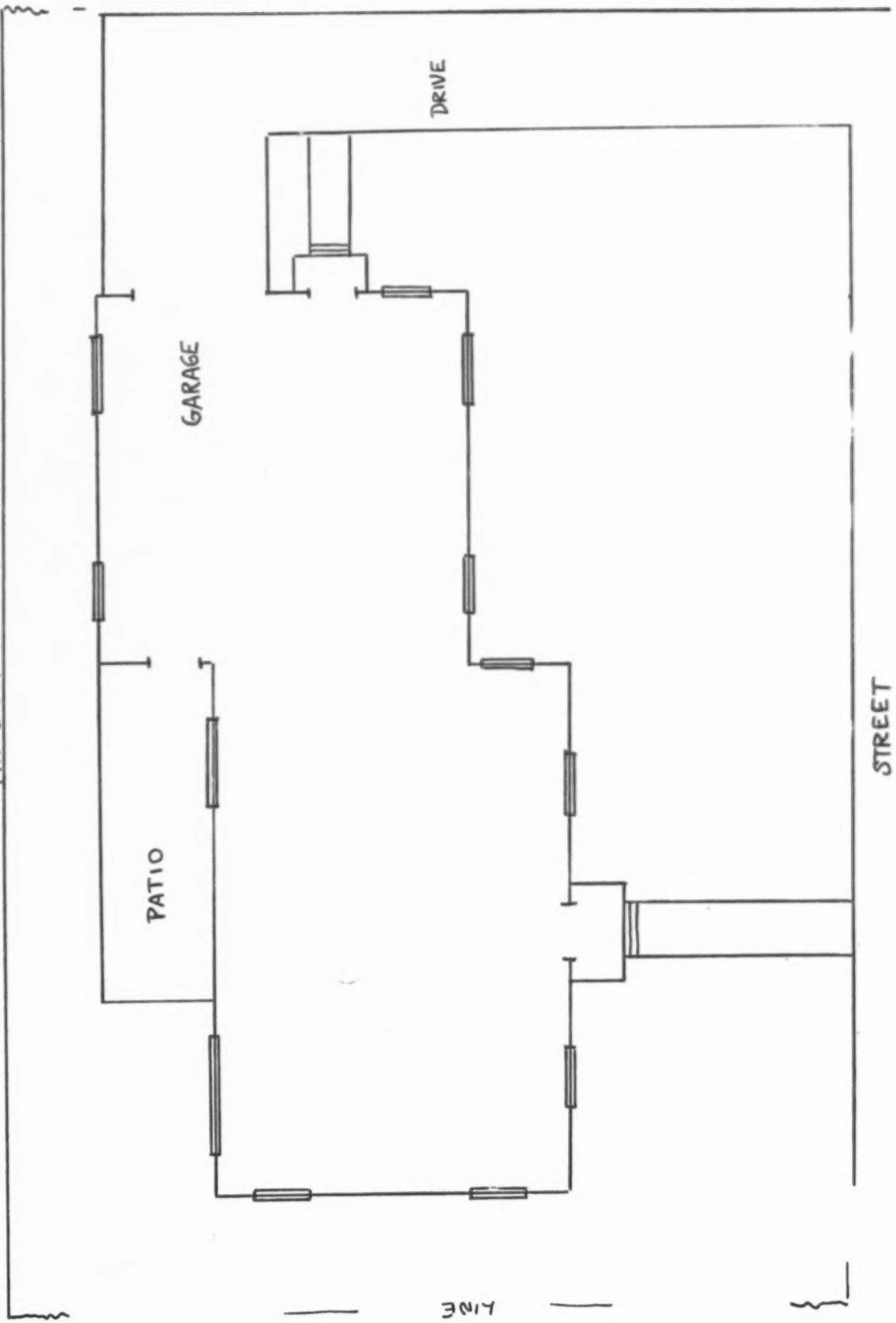


Figure 33. This is a suggested student exercise in applying landscape principles. This plan is for a lot with a two-story Colonial-Style house.

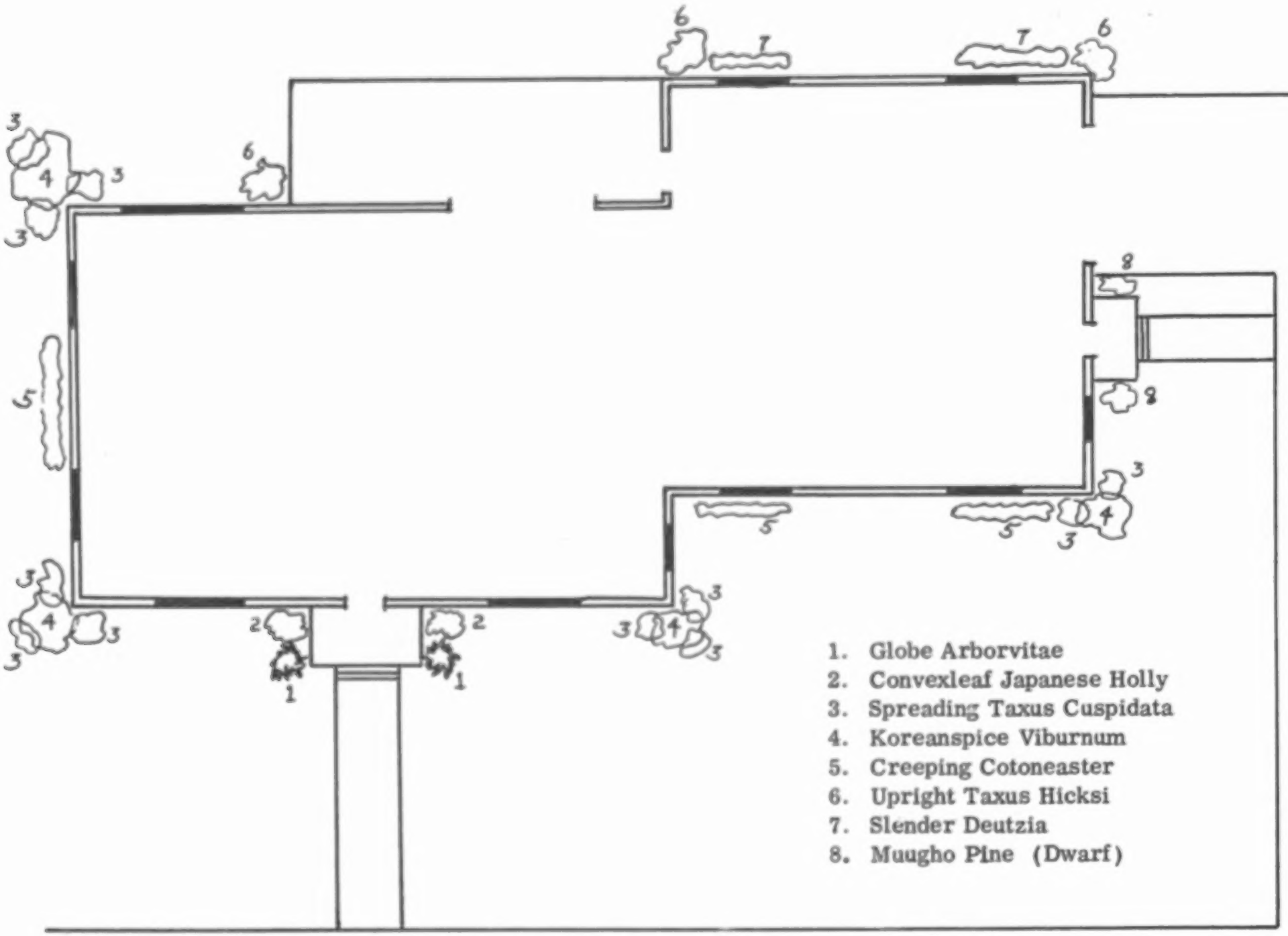


Figure 34. This is a suggested solution to the exercise in Figure 33.

Figure 35. This is a student exercise in the selection of appropriate plants for corner and porch plantings for tall houses. Have the student list the name and height of the plants.

Figure 36. This is a suggested solution to the exercise in Figure 36.

Suggested Planting

1. Compace Taxus Media (3')
2. Cranberry Cotoneaster (4')
3. Dwarf Spreading Yew (2')
4. Doublefile Biburnum (8' - 10')

Figure 37. Suggested corner and porch plantings for a tall house with the porch in the center of the house. In this student exercise in selection of appropriate plants, have the students list the name and height of the plants.

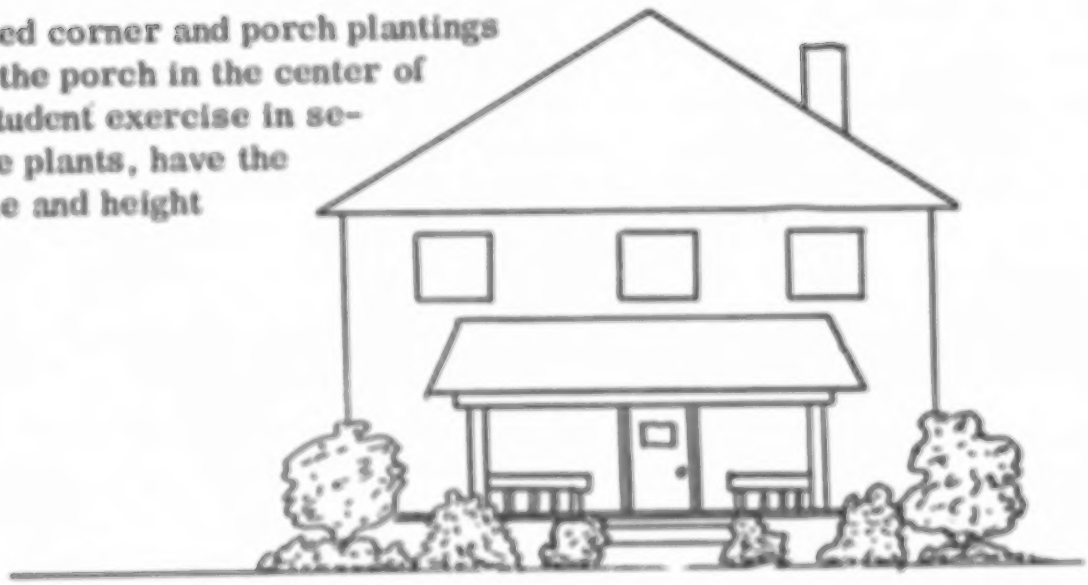
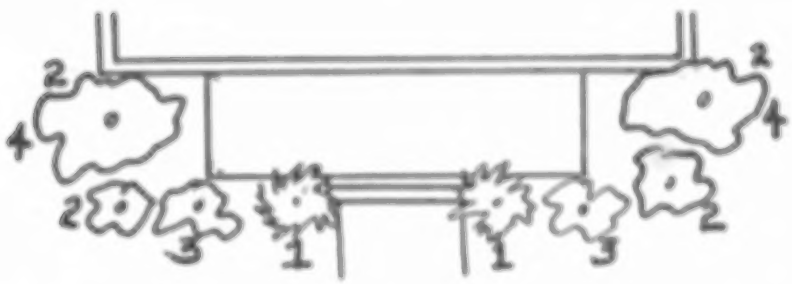
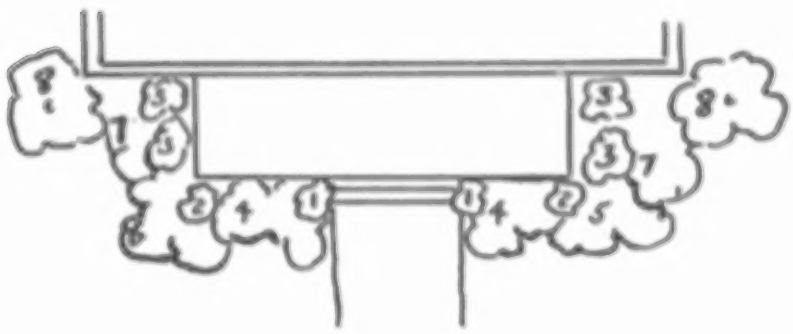


Figure 38. Suggested solution to the student exercise in Figure 37.



Suggested Planting for a Low Cost Budget

1. Compact Taxus Media
2. Glossy Wintercreeper
3. Koreanspice Viburnum



Suggested Planting for a High Priced Budget

1. Roundleaf Japanese Holly
2. Double Mockorange
3. Alpine Currant
4. Glossy Abelia
5. Common Flowering Quince
6. Cranberry Cotoneaster
7. Spirea Froebeli
8. Doublefile Viburnum

CHAPTER VI

Planting Ornamental Shrubs and Shade Trees.

Problem: What procedures should be followed in transplanting shrubs and trees?

Items to Consider:

1. Time to plant.
2. What size of hole to dig.
3. How to place plant in hole.
4. Use of a mulch.
5. Handling of balled plants.
6. Supporting of trees.
7. Protecting young plants from weather, insects, etc.

Basic Information:

1. Time to plant.

Ornamentals can be transplanted in the fall or spring. In the fall, soil is warm, moisture is usually sufficient, and plants grow better. Plants can become established before hot, dry weather. In the spring, there is more soil moisture, but the soil is cold. The best time to transplant bare root plants is the latter part of September or the early part of October, after the leaves have fallen.

Hard-to-transplant ornamentals should be planted in the spring to assure the longest possible period for the establishment of new roots.

2. Size of hole to dig.

The hole should be big enough so that the roots don't need to be wound around the ball of soil. There is also danger that the roots may girdle themselves with these wound roots. The hole for balled or container plants should be one to two feet wider than the ball, to permit sufficient backfill with good planting soil. Bare root plants should have room for the roots to spread out full-length.

3. Placing plant in hole.

In transplanting the ornamental, keep the soil level, the same on the plant as it was in the nursery. Put loose soil in the bottom of the hole. Manure or peat moss may be used in heavy soil. Don't plant on a moist day because the clay soil becomes packed which destroys air movement. Don't stamp the soil too firmly. Leave a saucer of earth around the edge of the hole. This retains the water to allow it to soak around the plant. Plant first and then let water hose run slowly

for about one to two hours. The water also helps to remove any air pockets around the roots.

4. Using a mulch.

Manure, peat moss, etc. can be used on top to conserve moisture after transplanting. Fertilizer can be added to a mulch of corn cobs, straw, sawdust for bacteria growth.

In spring, wait until soil is warm before mulching, usually about May. Mulch can be applied anytime in the fall.

5. Handling of balled plants.

Dig hole about two feet wider than ball of plant. Set top of ball slightly above ground level to compensate for its weight. Take out balling nails and lay burlap back and cover edge with soil. It will eventually rot.

When removing plants from containers, wet down to prevent soil from crumbling. Always take plants out of metal containers, and it is recommended that plants be taken out of paper containers, even though the paper will eventually rot. Roots grow out to the side as well as down. Roots will be required to grow too deep if whole can or container is not removed. See Figure 39.

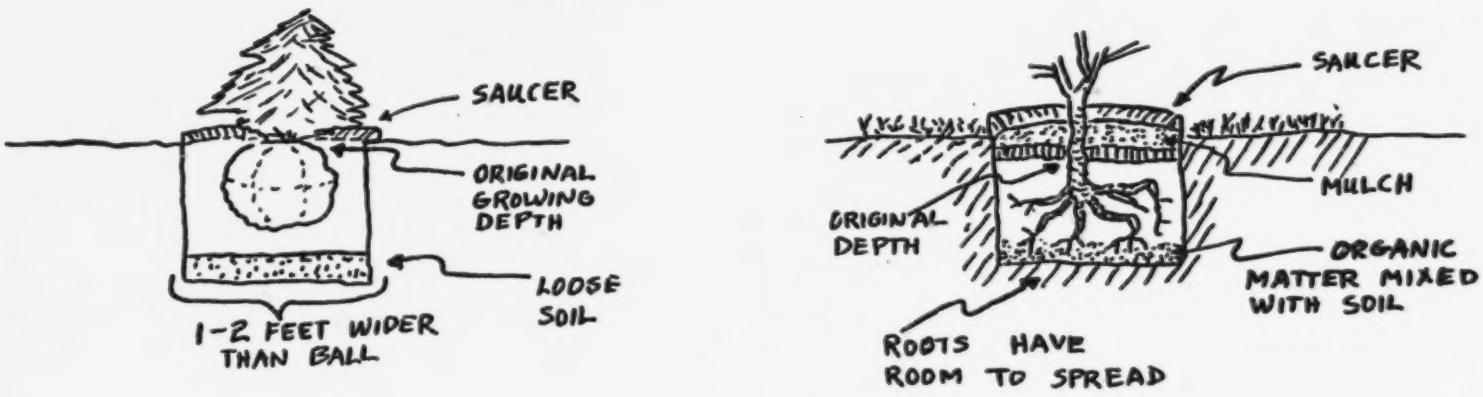
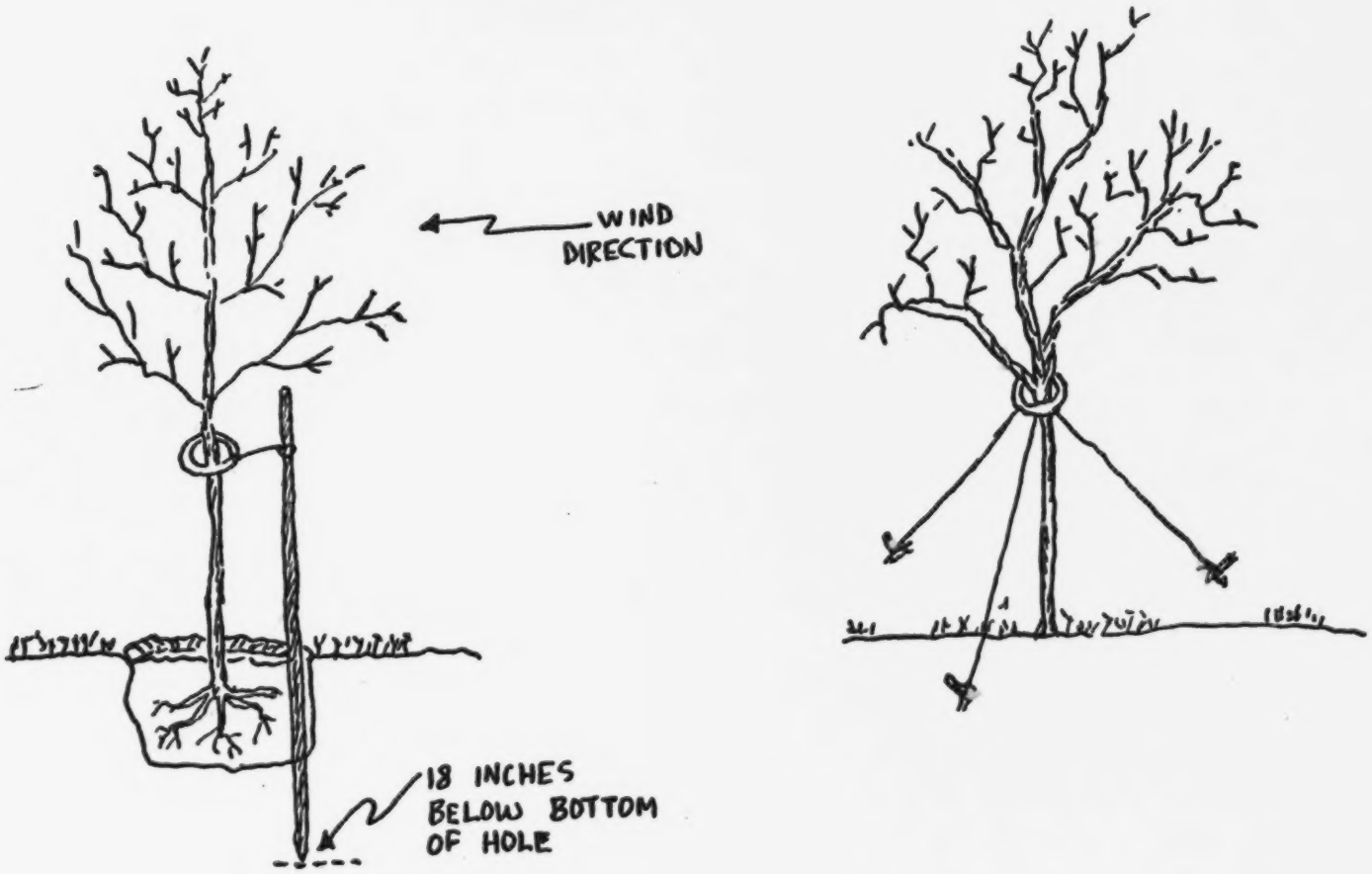


Figure 39. Proper placement of balled and bare-root plants in the ground.

6. Supporting trees after planting.

Put the supporting stake(s) on side of prevailing winds. Set stakes before planting to avoid damaging the roots. Set stake 18 inches deeper than the bottom of the hole, using a 2" x 2" x 8' stake. Any tree or shrub over two inches in diameter needs two to three stakes. Any plant over five inches in diameter needs guy wires. See Figure 40.

Figure 40. Proper method of supporting trees after planting.



7. Protecting young plants from weather, insects, etc.

Regular tree wrap prevents most of these troubles. Leave wrap on for at least two years. Regular tree wrapping is best to use, but burlap in strips is satisfactory. Start wrapping where branches come out.

QUIZ --- PLANTING ORNAMENTAL SHRUBS AND TREES

Completion:

1. Ornamentals can be transplanted in the __fall__ or __spring__.

2. The best time to transplant bare root plants is __latter part of September or early October__.

3. The hole should be big enough so that the roots __don't need to be wound around ball of soil__.

4. The hole for balled plants should be __two__ feet wider than the ball.

5. In transplanting the ornamental, the plant should be set __same__ __depth__ as it was in the nursery.

Essay:

6. Why should a saucer of earth be left around the edge of the hole? (To retain water - to allow it to soak around plant.)

7. Describe the correct procedure for handling the burlap on a balled plant. (Not necessary to remove burlap. Take out balling nails and lay burlap back. Cover edge with soil. It will eventually rot.)

8. Why should container plants be wet down before removing containers? (To prevent soil from crumbling.)

9. Describe the correct procedure for supporting a 2 1/2" diameter tree. (Use three stakes. Set 2" x 2" x 8' stakes 18 inches beyond bottom of hole.)

10. Why should newly transplanted trees be wrapped? (Wrapping trunk prevents insect and weather damage.)

CHAPTER VII

Fertilizing Ornamentals.

Problem: What fertilization practices should be followed in caring for ornamentals?

Items to Consider:

1. Need for shrub and tree fertilization.
2. Type of soil.
3. Time of year to fertilize.
4. Types and amounts of fertilizer to use.
5. Where to put fertilizer.

Basic Information:

1. Need for shrub and tree fertilization.

A deficiency of certain plan nutrients in the soil will cause reduced growth, reduced flowering and fruiting of some ornamentals, more susceptibility to diseases, reduced winter hardiness and off-colored foliage in flowering shrubs.

2. Type of soil.

For an accurate measure of plant nutrient deficiencies, soil should be tested at an approved soil laboratory. Most soils on home grounds are usually deficient in proper levels of mineral elements necessary for maximum plant growth.

3. Time of year to fertilize.

It is easy to damage plants when they are making new roots. If shrub is planted in fall, fertilize in the spring; if planted in spring, fertilize in the fall. Fertilize in April or September or October.

4. Types and amounts of fertilizer to use.

a. Trees.

For trees up to six inches in diameter, use three pounds per inch, of 10-6-4, 10-10-10, 12-12-12. For trees above six inches in diameter, use four to five pounds per inch of diameter. Fertilize annually.

b. Evergreens.

Narrowleaf evergreens require one-half to one pound per plant of 10-6-4, 8-8-4, or 4-12-4 fertilizer or similar analyses in the fall or early spring.

Broadleaf evergreens need applications of a special brand of broadleaf evergreen fertilizers, or 6-10-4, or 4-12-4 in which an organic nitrogen carrier is used to supply one-fourth or one-third of the nitrogen. Rate of application is the same as for narrowleaf evergreens.

c. Deciduous Shrubs.

For specimen plants, use one to two pounds per plant of 10-6-4, 15-10-5, 6-10-4, or 4-12-4.

5. Where to put fertilizer.

When fertilizing trees, it is best to put fertilizer in holes punched in the soil. Holes may be drilled 15 to 18 inches deep with an auger, or if soil is moist, an iron bar can be used to punch the holes. Use 20 holes per inch of tree trunk diameter.

Start holes a little beyond the edge of the branches because more roots are away from the trunk. Punch holes up to within a few feet of the trunk. See Figure 41.

Fertilizer for shrubs can be applied in the same manner. However, since phosphorus is relatively slow moving, it may be added at planting time. Do not use an excessive amount of fertilizer around plant roots as serious injury or death of the plant may occur.

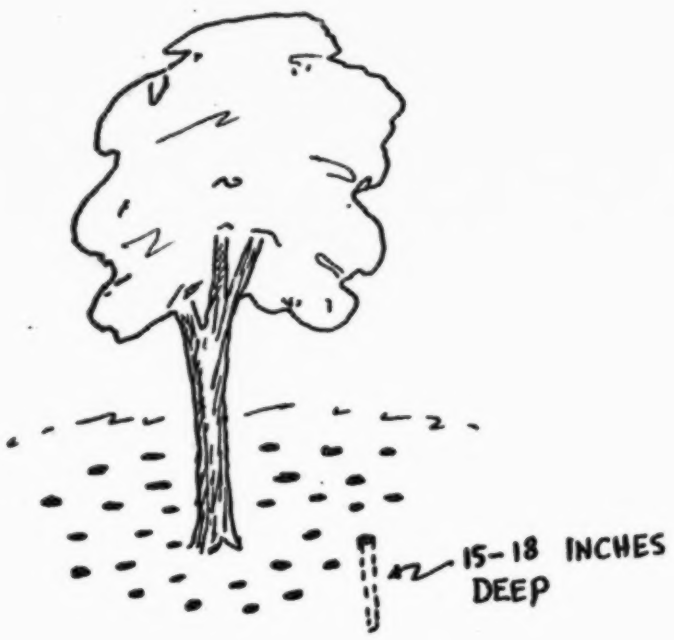


Figure 41. Placement of holes for application of fertilizer.

QUIZ --- FERTILIZING ORNAMENTALS

Multiple Choice:

1. Reduced flowering and fruiting of some ornamentals is caused by:

   *a. deficiency of certain plant nutrients in the soil.
   b. hot weather.
   c. too much watering.
   d. improper planting procedure.

2. The best time of year to fertilize is:

   a. usually in the spring.
   b. usually in the fall.
   c. when the plants are making new roots.
   *d. in the spring if shrub is planted in the fall; fall, if shrub is planted in the spring.

3. For trees up to six inches in diameter, fertilize as follows:

   a. 1 lb. 10-10-10 per inch of diameter.
   b. 2 lbs. 10-6-4 per inch of diameter.
   *c. 3 lbs. 12-12-12 per inch of diameter.
   d. 5 lbs. 12-12-12 per inch of diameter.

4. Broadleaf evergreens need applications of

   a. 10-10-10
   b. 12-12-12
   c. 10-6-4
   *d. 4-12-4

5. When fertilizing trees, it is best to put fertilizer

   a. on top of the ground as to benefit the grass.
   *b. in holes punched in the soil.
   c. on in the spring.
   d. on in the liquid form.

CHAPTER VIII

Pruning of Ornamental Shrubs and Shade Trees.

Problem: What procedures should be followed in pruning ornamentals?

Items to Consider:

1. Why prune ornamentals.
2. When to prune.
3. How to prune.
4. What equipment to use.
5. What special procedures to follow for different kinds of shrubs.

Basic Information:

1. Why prune ornamentals.

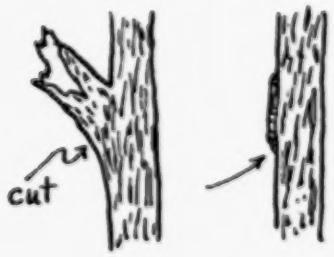
   a. To remove dead, diseased, criss-crossed, injured, or broken wood.
   b. To produce and preserve the desired shape and appearance of the plants.
   c. To keep them vigorous and to improve chance of survival at transplanting time.
   d. To improve flowering or fruiting.
   e. To retain maximum color on colored twig plants.

2. When to prune ornamentals.

Pruning can usually be done at any time of the year. Worst time to prune is the spring when new growth is starting. This weakens the plants, and they may die in the winter. Best time to prune evergreens is at Christman when they are dormant. Cuttings may then be used for decorations. Shrubs and trees may also be pruned in winter while they are dormant. Hedges may be pruned in the summer.

3. How to prune.

Primary rule: Don't leave stubs. Make cuts flush with the adjoining branch. Cuts of terminal shoots should be made just above a bud. Cut branches, don't break them off.



4. What equipment to use.

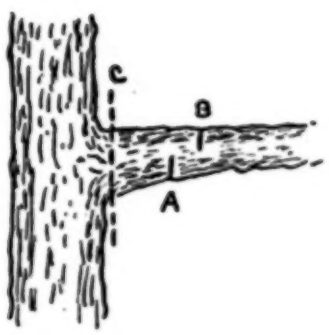
Adequate for most pruning jobs would be hand pruning shears, lopping shears, hedge shears, and a pruning saw. All equipment should be kept sharp, as proper pruning and ideal wound healing are dependent on the use of correct tools that are sharp.

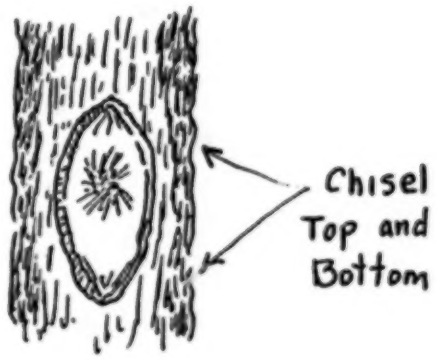
5. What special procedures to follow for different kinds of shrubs.

a. Shade trees.

Prune shade trees only when the tree branches or limbs are damaged, when they interfere with traffic on a walk or drive, or when they cause damage to or interfere with the operation of a building chimney, eaves spouting, etc.

The tree top may be thinned out to open internal branches to light. Do not cut the central leader unless absolutely necessary. Cut any large branches (size requiring a saw) by making three cuts according to diagram below. Treat all wounds one inch or more in diameter with regular tree paint. Do not use house paint. Filling a cavity in a tree does not keep rotting from continuing. It is necessary to get <u>all</u> of the rot out of the cavity. Shape cavity by chiseling it to a point at the top and at the bottom.





b. Flowering trees and shrubs.

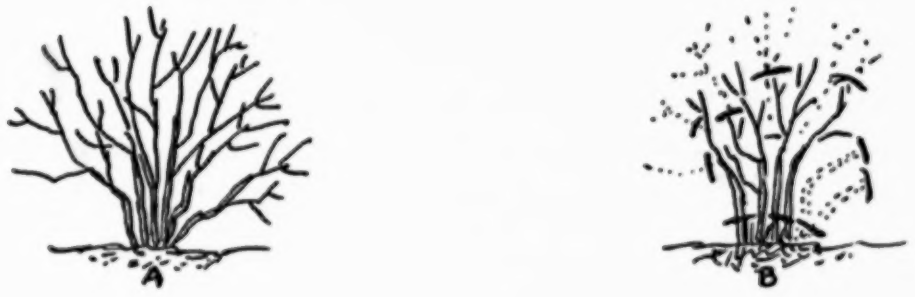
Follow recommendations indicated under shade trees. Old, hard wood won't grow new branches, so flowering trees need carefully planned, regularly scheduled pruning.

1) Forsythia Deutzia, Spirea, Lilacs, and most other early flowering plants bloom from buds formed on last summer's twigs. Prune from one to two weeks after bloom; when plants are through flowering.

2) Hydrangea, Rose of Sharon, Rugosa Rose and such plants produce flowers on new spring growth. Such plants may be pruned during the late fall after stem growth has ceased.

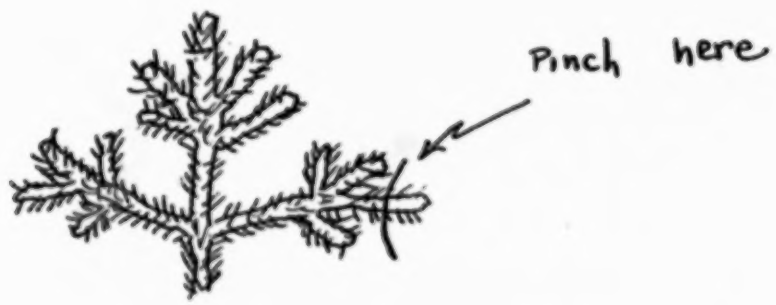
3) Shrubs that have showy colored stems, such as Red and Yellow Dogwood, Kerria and some low-growing shrub roses, produce their most brilliant color on new wood. About one-third of the older wood should be removed every year to retain maximum coloration.

Caution: Don't simply trim back tops on shrubs. Thin out plant by cutting older branches back to ground. Spirea can be cut back to four to six inches of the ground when old and bulky. Mockorange and lilacs can also be cut back the same. Don't cut viburnams clear to the ground.



c. Narrowleaf evergreens.

Narrowleafed evergreens produce new growth in the spring, so pruning should be done either before the new growth starts or after it is nearly complete, in the fall. Evergreens are usually plucked by hand, not sheared, in order to retain natural beauty. Spruces, pines, and firs are pruned by pinching off part of the candle growth (shoots) about half way in June. Pruning must be done every spring in order to have dense, compact plants.



Caution: Cut leader or terminal branch only to stop growth of plant, or to get a spreading of the branches. Do not prune branches at base of tree. This results in an artificial unattractive form.

d. Broadleaf evergreens.

Usually necessary to prune out just the deadwood, broken, diseased or insect infested branches. Straggly, misshapened plants may be cut back one-third to one-half of the terminal growth to a point where there is branching or budding of at least one green shoot or active bud. Rhododendrons may even be cut down to within several inches of the soil, although it may take several years before good height and flowers are attained.

e. Vines and ground covers.

Prune vines to control direction of growth, in order to keep them out of windows, etc. Regrowth starts from buds just below the cut. Vines do not generally renew themselves from shoots at the base.

Ground covers may need winter brown tips clipped in the spring after growth has begun. Usually, little pruning is necessary on many of the evergreen ground covers with the exception of some of the Euonumus, English Ivy, Spruge, and Creeping Mahonia.

f. Roses.

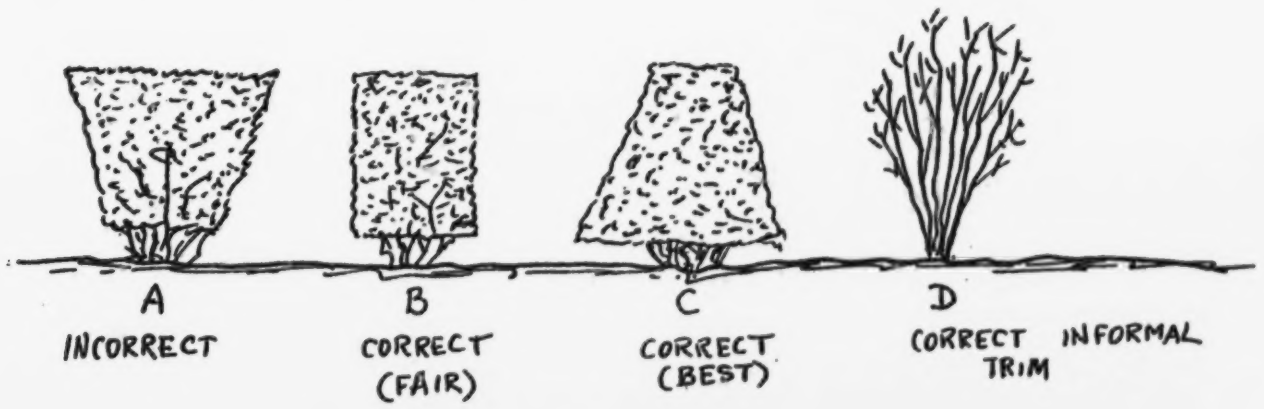
Prune roses in March, except climbers, which should be pruned after flowering. "Pencil" size shoots should be cut out. In summer, cut off old flowers. Cut to first 5-leaflet, because bud will grow long and sturdy, producing a bigger flower. If cut back to 3-leaflet, it may get a blind bud.

Remove dead, broken, and disease or insect infested branches, plus criss-crossed or misshapen canes. Cut remaining canes back to 18-24 inches in height.

g. Hedges.

Prune prior to growth in spring and again in summer to remove feathery new growth. Caution: Late-summer pruning of hedges is unsafe, as this practice creates a new growth of wood that seldom becomes hardened sufficiently to withstand severe winter weather.

Prune annually to retain size and shape. Prune hedge so that bottom is wider than the top. This prevents lower branches from dying due to loss of sunlight. Prune according to diagram below.



QUIZ: PRUNING ORNAMENTAL SHRUBS AND SHADE TREES

1. Ornamentals are pruned in order to produce and preserve the desired shape and appearance of the plant.

2. Ornamentals can usually be pruned at any time of the year.

3. The primary rule in pruning is: don't leave stubs.

4. In pruning shade trees, do not cut the central leader unless absolutely necessary.

5. Forsythia, Deutzia, Spirea, Lilacs and most other early flowering plants bloom from buds formed on last summer's twigs.

6. In pruning flowering shrubs, thin out the plant by cutting older branches back
A to the ground.

7. The usual procedure in pruning spruces, pines and firs is to pinch off part of the candle growth (one-half) in June.

8. Vines are pruned to control direction of growth.

9. Prune roses in March, except climbers, which should be pruned after flowering.

10. A hedge should be pruned so that the bottom is wider than the top.

UNIT TEST ON LANDSCAPING PRINCIPLES

Write "T" in the blank if the statement is true; "F" if the statement is false.

__T__ 1. Mass, color, line or texture must be equalized on each side of a real or imaginary point to satisfy one's visual sense of balance.

__T__ 2. Symmetrical balance means that plant arrangement on one side of an axis is the exact duplicate of the other side.

__T__ 3. A large tree on one side of the property can be used to balance several small trees on the other side.

__F__ 4. A medium-sized tree on one side of the property will not balance a group of shrubs on the other side.

__T__ 5. Simplicity is destroyed when too many different kinds of plants are used in the design.

__T__ 6. It is usually best to group three of one kind of plant rather than have a single plant.

__T__ 7. Objects such as plantings, fences, screens, etc., in the design should be wider than they are tall.

__T__ 8. If scale is kept constant throughout the design, the design will have proportion.

__F__ 9. Plantings in the front of the house should be higher in the center than on the corners.

__F__ 10. The front door of the house should not be accented by plantings.

Complete the statements with the appropriate word or phrase.

11. Landscaping is the art of arranging and fitting together of __land__, __plants__, and __structures__ for human use and enjoyment.

12. The __front__ __entrance__ is the focal point or center of interest around which public area plantings are grouped.

13. In designing corner plantings for low houses, for a pleasing transition between dominant vertical and horizontal lines, use __irregular__ shrubs with __horizontal__ __branching__ type of growth along with low spreading evergreens.

14. Hardiness of a plant refers to its ability to stand __cold temperatures__.

15. Proper selection of a plant in terms of __habit__, __growth rate__, and __ultimate size__ will reduce much heavy pruning.

16. Fast-growing trees may be __short__ lived.

17. Hardwood trees are usually __long__ lived.

18. The living area should be located so that it is easily reached from __the family room or living area of the house and the kitchen__

19. The __Thornless Honeylocust__ is replacing the American Elm as a popular shade tree.

20. The open-grassed area in the private lawn should be at least __50__ feet by __80__ feet to provide room for badminton, croquet, etc.

In the blank at the left of the statement place the letter of the word or phrase that best fits the statement.

__c__ 21. Achieved through repetition of landscape materials.

__j__ 22. Achieved by repeating a few well-arranged forms, colors, or textures in various areas.

__h__ 23. Means the size of units, such as open space, buildings, or plantings.

__i__ 24. A pleasing relationship of one part of the design to another part and to the whole design.

__d__ 25. Achieved by the use of contrast in size, texture, and color of plants.

__a__ 26. Achieved by placing a dark green evergreen plant against a white house.

__d__ 27. Achieved when colors of the various plantings blend with one another and with their surroundings.

__m__ 28. Achieved by planting a large tree on one side of the property and several small trees on the other side.

__l__ 29. Achieved by using a formal design rather than an informal design.

__h, i__ 30. Achieved by placing small to medium sized trees in a design for a low ranch type house.

a. contrast
b. balance
c. simplicity
d. harmony or rythm
e. unity or completeness
f. focal point
g. sequence
h. scale
i. proportion
j. repetition
k. texture
l. symmetrical balance
m. asymmetrical balance
n. condensation

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